CDX-F50M

SERVICE MANUAL

Ver. 1.2 2005. 10

US Model
Canadian Model
AEP Model
UK Model

• The tuner and CD sections have no adjustments.

AUDIO POWER SPECIFICATIONS (US MODEL)
POWER OUTPUT AND TOTAL HARMONIC DISTORTION
23.2 watts per channel minimum continuous average power into 4 ohms, 4 channels driven from 20 Hz to 20 kHz with no more than 5% total harmonic distortion.

Model Name Using Similar Mechanism	CDX-F5510/F5510X/F5550EE
CD Drive Mechanism Type	MG-611TA-186//K
Optical Pick-up Name	KSS1000E

SPECIFICATIONS

CD player section

Signal-to-noise ratio	120 dB
Frequency response	10 – 20,000 Hz
Wow and flutter	Below measurable limit

Tuner section

FM

Tuning range	87.5 – 108 MHz (at 50 kHz step) 87.5 – 107.9 MHz (at 200 kHz step)
FM tuning interval	50 kHz/200 kHz switchable
Antenna terminal	External antenna connector
Intermediate frequency	10.7 MHz/450 kHz
Usable sensitivity	9 dBf
Selectivity	75 dB at 400 kHz
Signal-to-noise ratio	67 dB (stereo), 69 dB (mono)
Harmonic distortion at 1 kHz	0.5% (stereo), 0.3% (mono)
Separation	35 dB at 1 kHz
Frequency response	30 – 15,000 Hz

AM

Tuning range	531 – 1,602 kHz (at 9 kHz step) 530 – 1,710 kHz (at 10 kHz step)
AM tuning interval	9 kHz/10 kHz switchable
Antenna terminal	External antenna connector
Intermediate frequency	10.7 MHz/450 kHz
Sensitivity	30 µV

Power amplifier section

Outputs	Speaker outputs (sure seal connectors)
Speaker impedance	4 – 8 ohms
Maximum power output	52 W × 4 (at 4 ohms)

General

Outputs	Audio outputs terminal (front, sub/rear switchable) Power antenna relay control terminal Power amplifier control terminal
Inputs	Telephone ATT control terminal Illumination control terminal BUS control input terminal BUS audio input/AUX IN terminal Remote controller input terminal Antenna input terminal

– Continued on next page –

FM/AM COMPACT DISC PLAYER

9-879-490-03
2005J04-1
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Sony Corporation
eVehicle Division
Published by Sony Engineering Corporation

SONY®

Tone controls	Low: ±10 dB at 60 Hz (XPLOD) Mid: ±10 dB at 1 kHz (XPLOD) High: ±10 dB at 10 kHz (XPLOD)
Power requirements	12 V DC car battery (negative ground)
Dimensions	Approx. 178 × 50 × 177 mm (7 1/8 × 2 × 7 in.) (w/h/d)
Mounting dimensions	Approx. 182 × 53 × 161 mm (7 1/4 × 2 1/8 × 6 3/8 in.) (w/h/d)
Mass	Approx. 1.2 kg (2 lb. 10 oz.)
Supplied accessories	Parts for installation and connections (1 set) Front panel case (1)

US and foreign patents licensed from Dolby Laboratories.

Note
This unit cannot be connected to a digital preamplifier or an equalizer which is Sony BUS system compatible.

Design and specifications are subject to change without notice.

SERVICE NOTES

NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

The laser diode in the optical pick-up block may suffer electrostatic breakdown because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body.
During repair, pay attention to electrostatic breakdown and also use the procedure in the printed matter which is included in the repair parts.
The flexible board is easily damaged and should be handled with care.

NOTES ON LASER DIODE EMISSION CHECK

The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe from more than 30 cm away from the objective lens.

Notes on Chip Component Replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

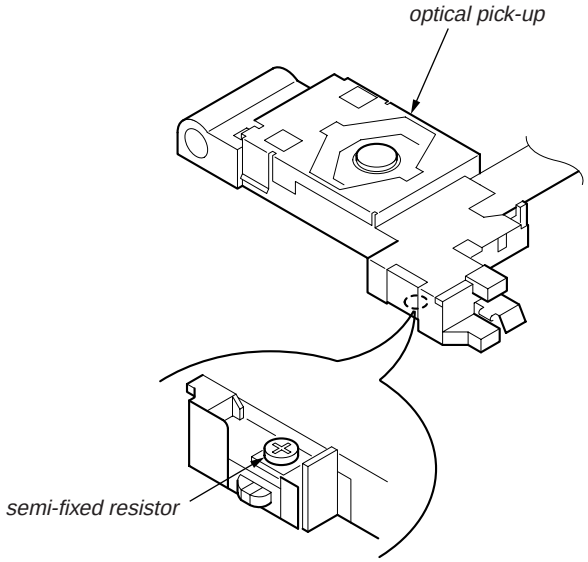
TEST DISCS

This set can playback CD-R and CD-ROM discs. The following test discs should be used to check the capability:

CD-R test disc TCD-R082LMT (Part No. J-2502-063-1)
CD-RW test disc TCD-W082L (Part No. J-2502-063-2)

CAUTION
Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

If the optical pick-up block is defective, please replace the whole optical pick-up block.
Never turn the semi-fixed resistor located at the side of optical pick-up block.



CLASS 1
LASER PRODUCT

This label is located on the bottom of the chassis.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE ⚠ SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

• CD Playback:
You can play CD-DA (also containing CD TEXT*[1]), CD-R/CD-RW (MP3 files also containing Multi Session and ATRAC CD (ATRAC3 and ATRAC3plus format).

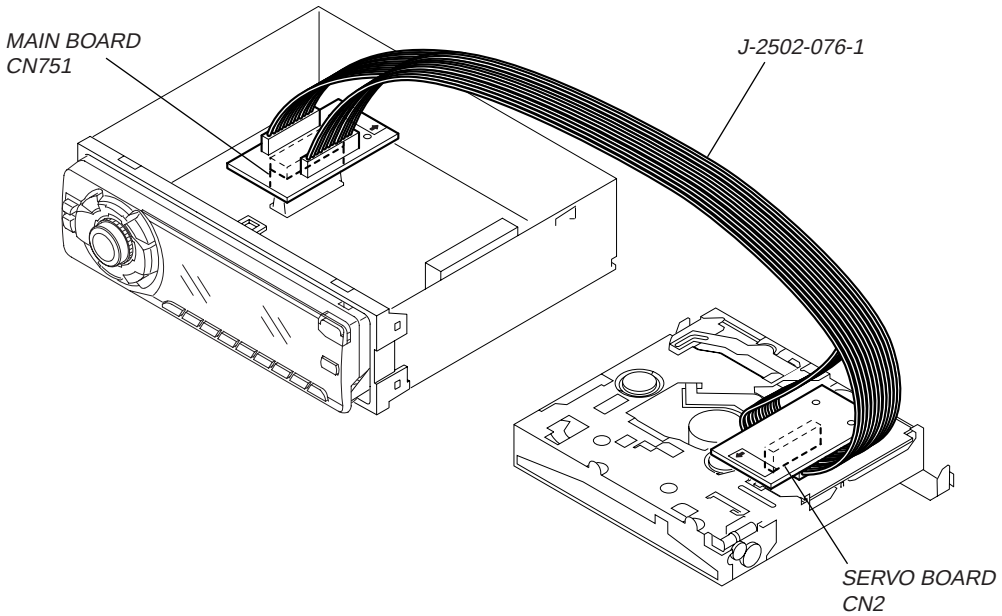
Type of discs	Label on the disc
CD-DA	COMPACT disc DIGITAL AUDIO Recordable COMPACT disc DIGITAL AUDIO ReWritable
MP3 ATRAC CD	COMPACT disc DIGITAL AUDIO Recordable COMPACT disc DIGITAL AUDIO ReWritable COMPACT disc Recordable COMPACT disc ReWritable

*1 A CD TEXT disc is a CD-DA that includes information such as disc, artist and track name.

EXTENSION CABLE AND SERVICE POSITION

When repairing or servicing this set, connect the jig (extension cable) as shown below.

• Connect the MAIN board (CN751) and the SERVO board (CN2) with the extension cable (Part No. J-2502-076-1).



● UNLEADED SOLDER

Boards requiring use of unleaded solder are printed with the lead free mark (LF) indicating the solder contains no lead.
(Caution: Some printed circuit boards may not come printed with the lead free mark due to their particular size)

: LEAD FREE MARK

Unleaded solder has the following characteristics.

• Unleaded solder melts at a temperature about 40 °C higher than ordinary solder.
Ordinary soldering irons can be used but the iron tip has to be applied to the solder joint for a slightly longer time.
Soldering irons using a temperature regulator should be set to about 350 °C.
Caution: The printed pattern (copper foil) may peel away if the heated tip is applied for too long, so be careful!

• Strong viscosity
Unleaded solder is more viscou-s (sticky, less prone to flow) than ordinary solder so use caution not to let solder bridges occur such as on IC pins, etc.

• Usable with ordinary solder
It is best to use only unleaded solder but unleaded solder may also be added to ordinary solder.

TABLE OF CONTENTS

1. GENERAL

Location of Controls 5
Connections 5

2. DISASSEMBLY

2-1. Sub Panel Assy (CD) 8
2-2. CD Mechanism Block 8
2-3. Main Board 9
2-4. Chassis (T) Sub Assy 9
2-5. Roller Arm Assy 10
2-6. Chassis (OP) Assy 10
2-7. Optical Pick-up 11
2-8. SL Motor Assy (M902) 11
2-9. LE Motor Assy (M903) 12
2-10. Servo Board 12

3. DIAGRAMS

3-1. Block Diagram –CD Section– 13
3-2. Block Diagram –Main Section– 14
3-3. Block Diagram –Display Section– 15
3-4. Circuit Boards Location 15
3-5. Printed Wiring Boards –CD Mechanism Section– 17
3-6. Schematic Diagram –CD Mechanism Section (1/2)– 18
3-7. Schematic Diagram –CD Mechanism Section (2/2)– 19
3-8. Schematic Diagram –Main Section (1/3)– 20
3-9. Schematic Diagram –Main Section (2/3)– 21
3-10. Schematic Diagram –Main Section (3/3)– 22
3-11. Printed Wiring Boards –Main Section– 23
3-12. Printed Wiring Board –Relay Section– 24
3-13. Printed Wiring Board –Display Section– 25
3-14. Schematic Diagram –Display Section– 26

4. EXPLODED VIEWS

4-1. Main Section 34
4-2. Front Panel Section 35
4-3. CD Mechanism Section (1) 36
4-4. CD Mechanism Section (2) 37
4-5. CD Mechanism Section (3) 38
4-6. CD Mechanism Section (4) 39

5. ELECTRICAL PARTS LIST 40

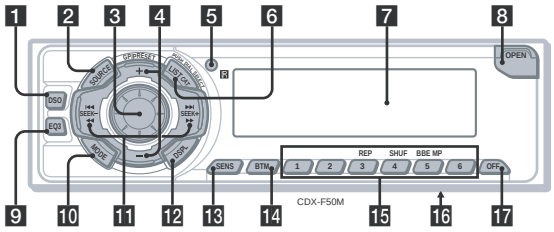
SECTION 1
GENERAL

This section is extracted from instruction manual.

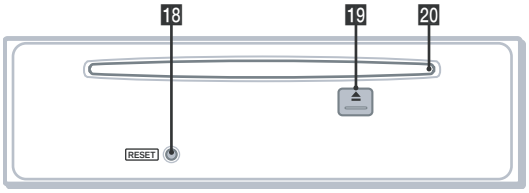
• LOCATION OF CONTROL

Location of controls and basic operations

Main unit



Front panel removed



Refer to the pages listed for details. The corresponding buttons on the card remote commander control the same functions as those on the unit.

1 DSO button 2
To select the DSO mode (1, 2, 3 or OFF). The larger the number, the more enhanced the effect.

2 SOURCE button
To power on/change the source (Radio/CD/MD*1/AUX (CDX-F50M only)).

3 Volume control dial/Select button 4, 9, 10,
To adjust volume (rotate); select items (press).

4 GP*2/PRESET +/– buttons
To select preset stations/skip groups (press); skip groups continuously (press and hold).

5 Receptor for the card remote commander

6 LIST/CAT*3 button 9, 11
To list up.

7 Display window

8 OPEN button 5
To open the front panel.

9 EQ3 (equalizer) button 9
To select an equalizer type (XPLOD, VOCAL, CLUB, JAZZ, NEW AGE, ROCK, CUSTOM or OFF).

10 MODE button 8, 11
To select the radio band (FM/AM)/select the unit*4.

11 SEEK –/+ buttons
Radio:
To tune in stations automatically (press); find a station manually (press and hold).
CD:
To skip tracks (press); skip tracks continuously (press, then press again within about 1 second and hold); fast-forward/reverse a track (press and hold).

12 DSPL (display) button 4, 8, 10
To change display items.

13 SENS button
To improve weak reception: LOCAL/MONO.

14 BTM button 8
To start the BTM function (press and hold).

15 Number buttons
Radio:
To receive stored stations (press); store stations (press and hold).
CD/MD*1:
③: **REP** 8
④: **SHUF** 8
⑤: **BBE MP***5 3
To activate the BBE MP function, to set "B BEMP-ON" during playback on this unit. To cancel, set "B BEMP-OFF."

16 Frequency select switch (located on the bottom of the unit) (CDX-F50M only)
See "Frequency select switch" in the supplied installation/connections manual.

17 OFF button
To power off/stop the source.

18 RESET button 4

19 ⏏ (eject) button 5
To eject the disc.

20 Disc slot 5
To insert the disc.

The following buttons on the card remote commander have also different buttons/functions from the unit.

21 ⬅ (I◀◀)/➡ (▶▶I) buttons
To control radio/CD, the same as (SEEK) –/+ on the unit. (For details of other operations, see "With the card remote commander" on each pages.)

22 VOL +/– button
To adjust volume.

23 ATT (attenuate) button
To attenuate the sound. To cancel, press again.

24 SEL (select) button
The same as the select button on the unit.

25 ⬆ (+)/⬇ (–) buttons
To control radio/CD, the same as (GP/PRESET) +/– on the unit. (For details of other operations, see "With the card remote commander" on each pages.)

26 SCRL button 8
To scroll the display item.

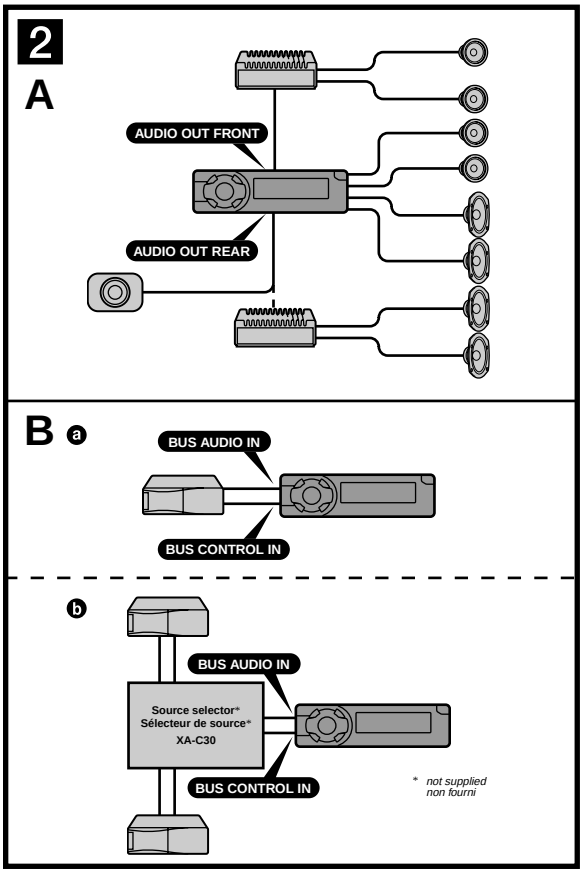
27 Number buttons
To receive stored stations (press); store stations (press and hold).

*1 When an MD changer is connected.
*2 When an MP3/ATRAC CD is played and a changer is not connected. If the changer is connected, the operation is different, see page 11.
*3 When the XM tuner is connected.
*4 When a CD/MD changer is connected.
*5 The unit only.

Note
If the unit is turned off and the display disappears, it cannot be operated with the card remote commander unless (SOURCE) on the unit is pressed, or a disc is inserted to activate the unit first.

Tip
For details on how to replace the battery, see "Replacing the lithium battery of the card remote commander" on page 15.

• CONNECTIONS



Connection example (2)

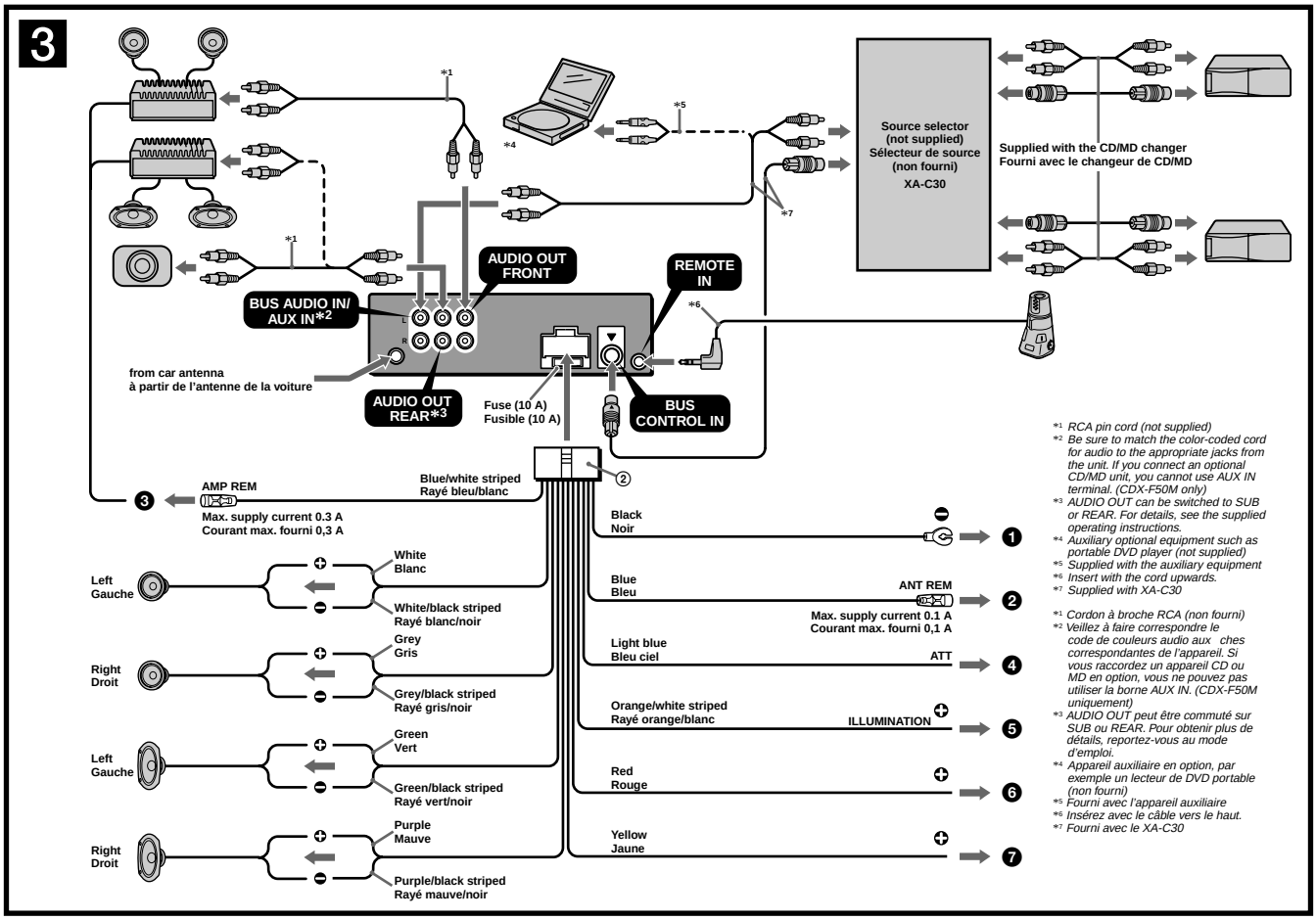
***Notes* (2-A)**
- *Be sure to connect the ground lead before connecting the amplifier.*
- *The alarm will only sound if the built-in amplifier is used.*

***Tip* (2-B-ⓑ)**
For connecting two or more CD/MD changers, the source selector XA-C30 (optional) is necessary.

Exemple de raccordement (2)

***Remarques* (2-A)**
- *Raccordez d'abord le câble de mise à la masse avant de raccorder l'amplificateur.*
- *L'alarme est émise uniquement lorsque l'amplificateur intégré est utilisé.*

***Conseil* (2-B-ⓑ)**
Dans le cas du raccordement de deux changeurs de CD/MD ou plus, le sélecteur de source XA-C30 (en option) est requis.



*1 RCA pin cord (not supplied)
*2 Be sure to match the color-coded cord for audio to the appropriate jacks from the unit. If you connect an optional CD/MD unit, you cannot use AUX IN terminal. (CDX-F50M only)
*3 AUDIO OUT can be switched to SUB or REAR. For details, see the supplied operating instructions.
*4 Auxiliary optional equipment such as portable DVD player (not supplied)
*5 Supplied with the auxiliary equipment
*6 Insert with the cord upwards.
*7 Supplied with XA-C30

*1 Cordon à broche RCA (non fourni)
*2 Veillez à faire correspondre le code de couleurs audio aux ches correspondantes de l'appareil. Si vous raccordez un appareil CD ou MD en option, vous ne pouvez pas utiliser la borne AUX IN. (CDX-F50M uniquement)
*3 AUDIO OUT peut être commuté sur SUB ou REAR. Pour obtenir plus de détails, reportez-vous au mode d'emploi.
*4 Appareil auxiliaire en option, par exemple un lecteur de DVD portable (non fourni)
*5 Fourni avec l'appareil auxiliaire
*6 Insérez avec le câble vers le haut.
*7 Fourni avec le XA-C30

Connection diagram (3)

❶ **To a metal surface of the car**
First connect the black ground lead, then connect the orange/white striped, yellow, and red power input leads.

❷ **To the power antenna control lead or power supply lead of antenna booster ampli er**
Notes
It is not necessary to connect this lead if there is no power antenna or antenna booster, or with a manually-operated telescopic antenna.
When your car has a built-in FM/AM antenna in the rear/side glass, see "Notes on the control and power supply leads."

❸ **To AMP REMOTE IN of an optional power amplifier**
This connection is only for amplifiers. Connecting any other system may damage the unit.

❹ **To the interface cable of a car telephone**

❺ **To a car's illumination signal**
Be sure to connect the black ground lead to a metal surface of the car first.

❻ **To the +12 V power terminal which is energized in the accessory position of the ignition key switch**
Notes
If there is no accessory position, connect to the +12 V power (battery) terminal which is energized at all times. Be sure to connect the black ground lead to a metal surface of the car first.
When your car has a built-in FM/AM antenna in the rear/side glass, see "Notes on the control and power supply leads."

❼ **To the +12 V power terminal which is energized at all times**
Be sure to connect the black ground lead to a metal surface of the car first.

Notes on the control and power supply leads
- *The power antenna control lead (blue) supplies +12 V DC when you turn on the tuner.*
- *When your car has built-in FM/AM antenna in the rear/side glass, connect the power antenna control lead (blue) or the accessory power input lead (red) to the power terminal of the existing antenna booster. For details, consult your dealer.*
- *A power antenna without a relay box cannot be used with this unit.*

Memory hold connection
When the yellow power input lead is connected, power will always be supplied to the memory circuit even when the ignition switch is turned off.

Notes on speaker connection
- *Before connecting the speakers, turn the unit off.*
- *Use speakers with an impedance of 4 to 8 ohms, and with adequate power handling capacities to avoid its damage.*
- *Do not connect the speaker terminals to the car chassis, or connect the terminals of the right speakers with those of the left speaker.*
- *Do not connect the ground lead of this unit to the negative (–) terminal of the speaker.*
- *Do not attempt to connect the speakers in parallel.*
- *Connect only passive speakers. Connecting active speakers (with built-in amplifiers) to the speaker terminals may damage the unit.*
- *To avoid a malfunction, do not use the built-in speaker leads installed in your car if the unit shares a common negative (–) lead for the right and left speakers.*
- *Do not connect the unit's speaker leads to each other.*

Note on connection
If speaker and ampli er are not connected correctly, "FAILURE" appears in the display. In this case, make sure the speaker and amplifier are connected correctly.

Schéma de raccordement (3)

❶ **À un point métallique de la voiture**
Branchez d'abord le fil de masse noir et, ensuite, les fils d'entrée d'alimentation rayé orange/blanc, jaune, et rouge.

❷ **Vers le câble de commande d'antenne électrique ou le câble d'alimentation de l'amplificateur d'antenne**
Remarques
- *Il n'est pas nécessaire de raccorder ce câble s'il n'y a pas d'antenne électrique ni d'amplificateur d'antenne, ou avec une antenne télescopique manuelle.*
- *Si votre voiture est équipée d'une antenne FM/AM intégrée dans la vitre arrière/latérale, voir « Remarques sur les câbles de commande et d'alimentation ».*

❸ **Au niveau de AMP REMOTE IN de l'amplificateur de puissance en option**
Ce raccordement s'applique uniquement aux amplificateurs. Le branchement de tout autre système risque d'endommager l'appareil.

❹ **Vers le cordon de liaison d'un téléphone de voiture**

❺ **Vers le connecteur du signal d'éclairage de la voiture**
Raccordez d'abord le fil de masse noir à un point métallique du véhicule.

❻ **À la borne +12 V qui est alimentée quand la clé de contact est sur la position accessoires**
Remarques
- *S'il n'y a pas de position accessoires, raccordez la borne d'alimentation (batterie) +12 V qui est alimentée en permanence. Raccordez d'abord le câble de mise à la masse noir à un point métallique du véhicule.*
- *Si votre voiture est équipée d'une antenne FM/AM intégrée dans la vitre arrière/latérale, voir « Remarques sur les câbles de commande et d'alimentation ».*

❼ **À la borne +12 V qui est alimentée en permanence**
Raccordez d'abord le câble de mise à la masse noir à un point métallique du véhicule.

Remarques sur les câbles de commande et d'alimentation
- *Le câble de commande d'antenne électrique (bleu) fournit une alimentation de + 12 V CC lorsque vous mettez la radio sous tension.*
- *Lorsque votre voiture est équipée d'une antenne FM/AM intégrée dans la vitre arrière/latérale, raccordez le câble de commande d'antenne (bleu) ou l'entrée d'alimentation des accessoires (rouge) à la borne d'alimentation de l'amplificateur d'antenne existant. Pour plus de détails, consultez votre détaillant.*
- *Une antenne électrique sans boîtier de relais ne peut pas être utilisée avec cet appareil.*

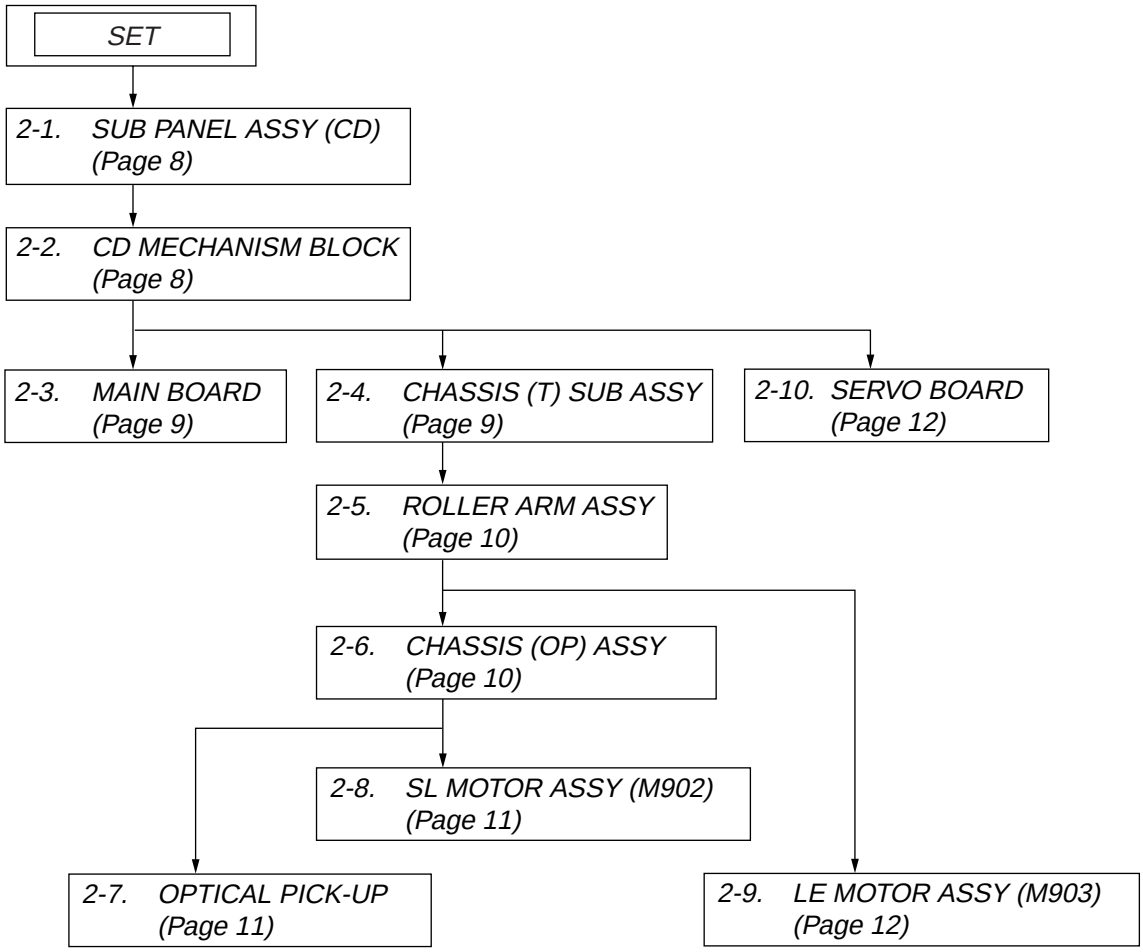
Raccordement pour la conservation de la mémoire
Lorsque le câble d'entrée d'alimentation jaune est raccordé, le circuit de la mémoire est alimenté en permanence même si la clé de contact est sur la position d'arrêt.

Remarques sur le raccordement des haut-parleurs
- *Avant de raccorder les haut-parleurs, mettez l'appareil hors tension.*
- *Utilisez des haut-parleurs ayant une impédance de 4 à 8 ohms avec une capacité électrique adéquate pour éviter de les endommager.*
- *Ne raccordez pas les bornes du système de haut-parleurs au châssis de la voiture et ne raccordez pas les bornes des haut-parleurs droit à celles du haut-parleur gauche.*
- *Ne raccordez pas le câble de mise à la masse de cet appareil à la borne négative (–) du haut-parleur.*
- *N'essayez pas de raccorder les haut-parleurs en parallèle.*
- *Raccordez uniquement des haut-parleurs passifs. Le raccordement de haut-parleurs actifs (avec amplificateurs intégrés) aux bornes des haut-parleurs peut endommager l'appareil.*
- *Pour éviter tout problème de fonctionnement, n'utilisez pas les câbles des haut-parleurs intégrés installés dans votre voiture si l'appareil partage un câble négatif commun (–) pour les haut-parleurs droit et gauche.*
- *Ne raccordez pas entre eux les cordons des haut-parleurs de l'appareil.*

Remarque sur le raccordement
Si les haut-parleurs et l'amplificateur ne sont pas raccordés correctement, le message « FAILURE » s'affiche. Dans ce cas, assurez-vous que les haut-parleurs et l'amplificateur sont bien raccordés.

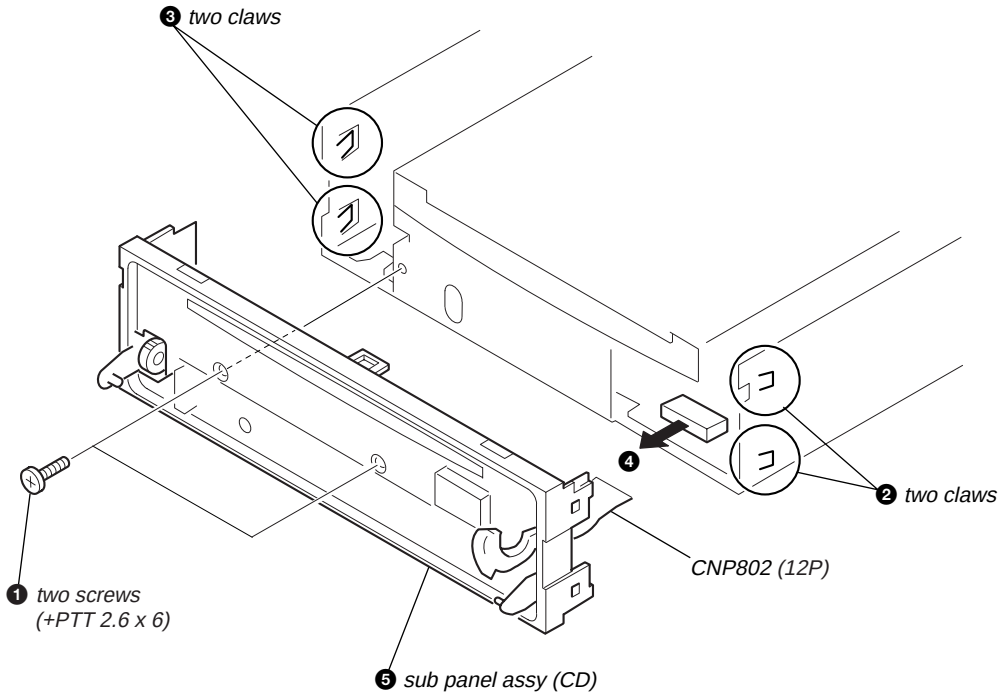
SECTION 2
DISASSEMBLY

Note : This set can be disassemble according to the following sequence.

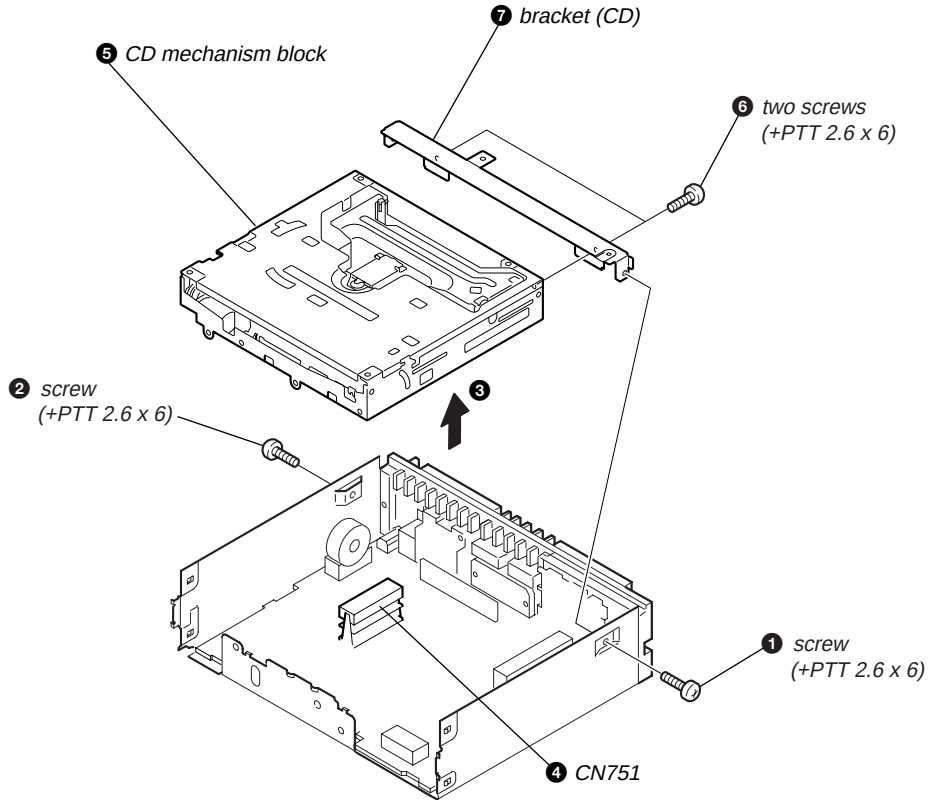

SET
2-1. SUB PANEL ASSY (CD) (Page 8)
2-2. CD MECHANISM BLOCK (Page 8)
2-3. MAIN BOARD (Page 9)
2-4. CHASSIS (T) SUB ASSY (Page 9)
2-10. SERVO BOARD (Page 12)
2-5. ROLLER ARM ASSY (Page 10)
2-6. CHASSIS (OP) ASSY (Page 10)
2-8. SL MOTOR ASSY (M902) (Page 11)
2-7. OPTICAL PICK-UP (Page 11)
2-9. LE MOTOR ASSY (M903) (Page 12)

Note : Follow the disassembly procedure in the numerical order given.

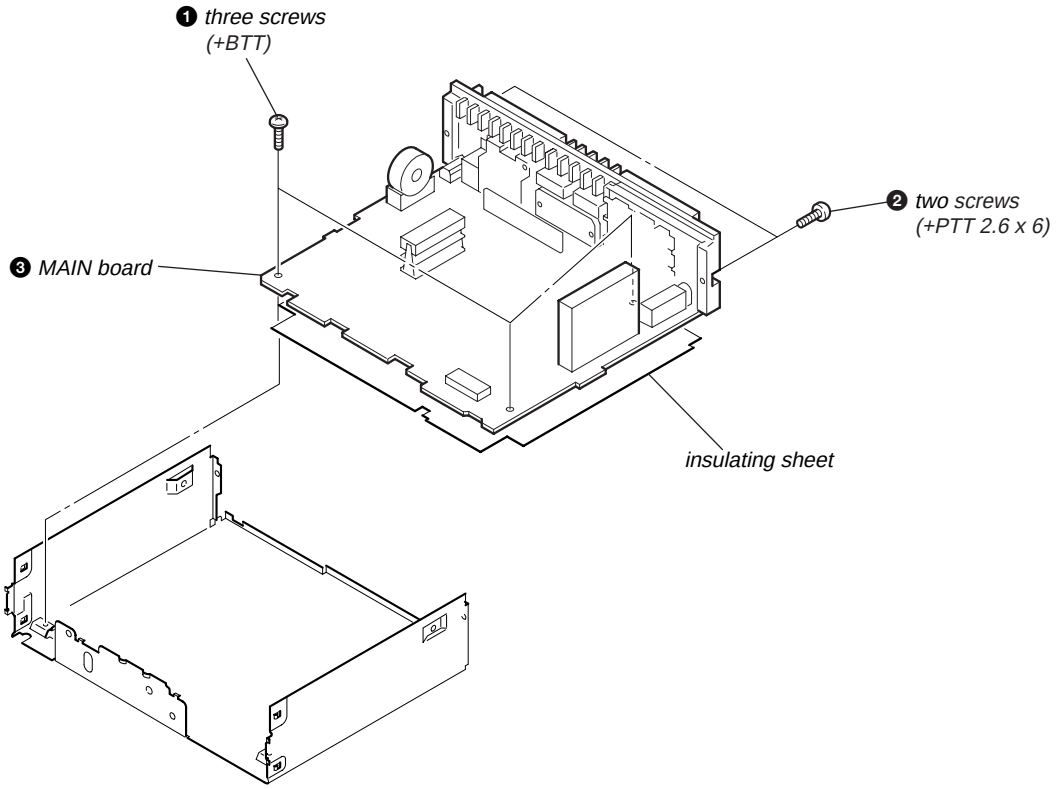
2-1. SUB PANEL ASSY (CD)



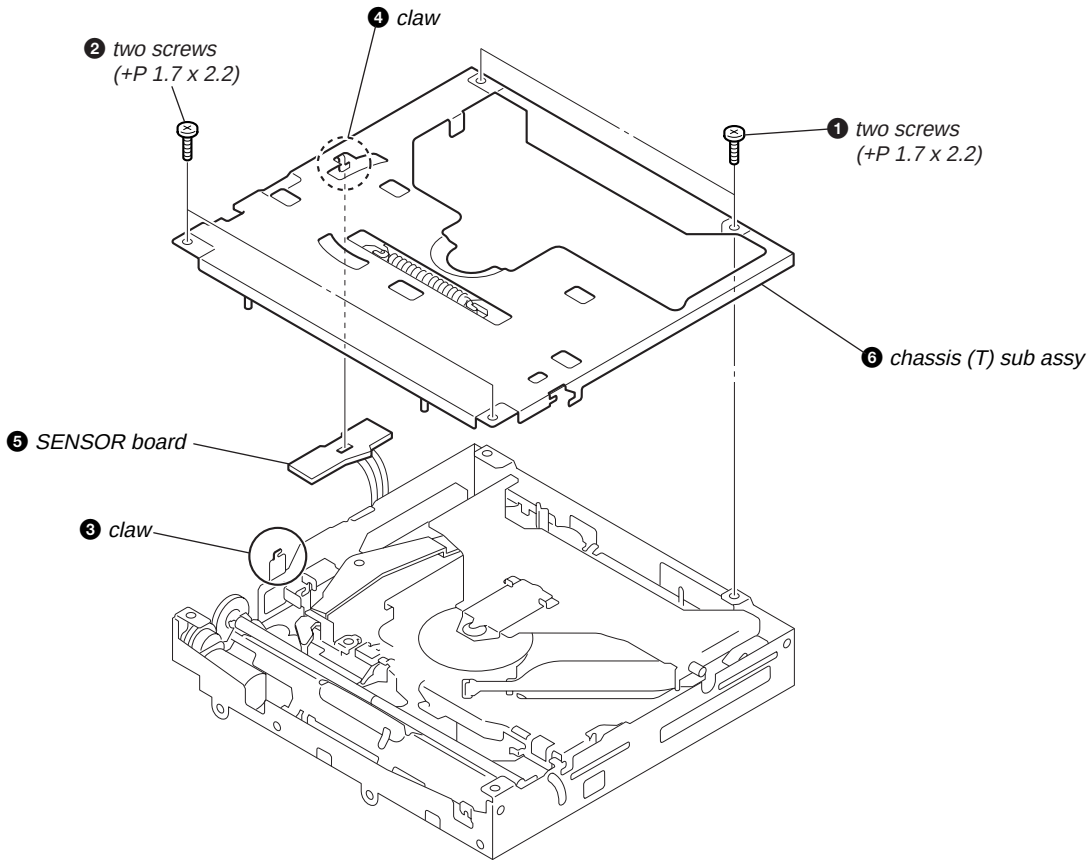
2-2. CD MECHANISM BLOCK



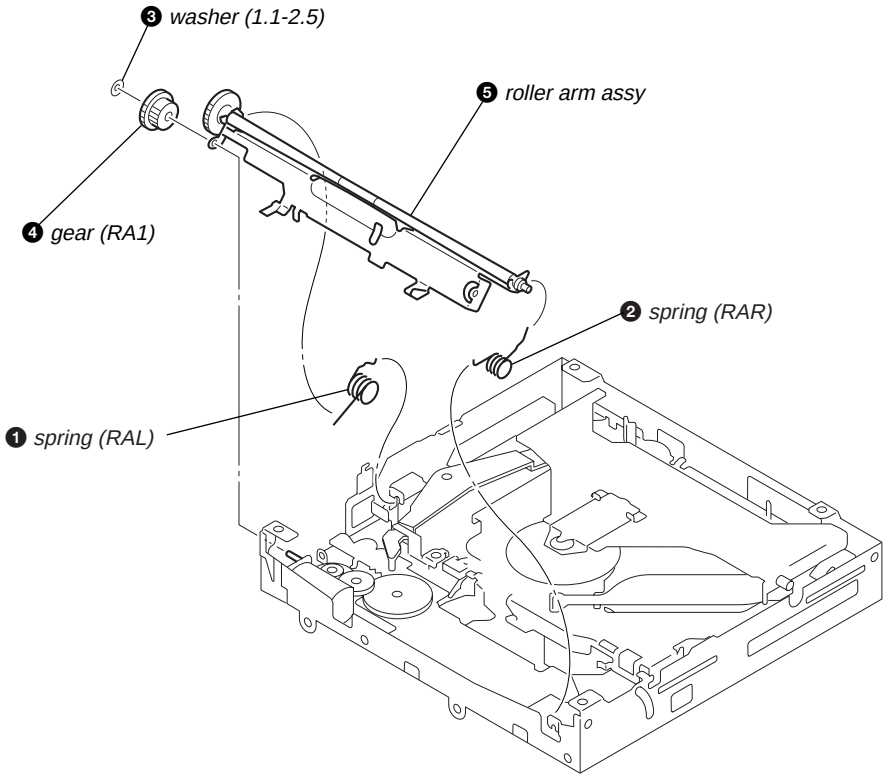
2-3. MAIN BOARD



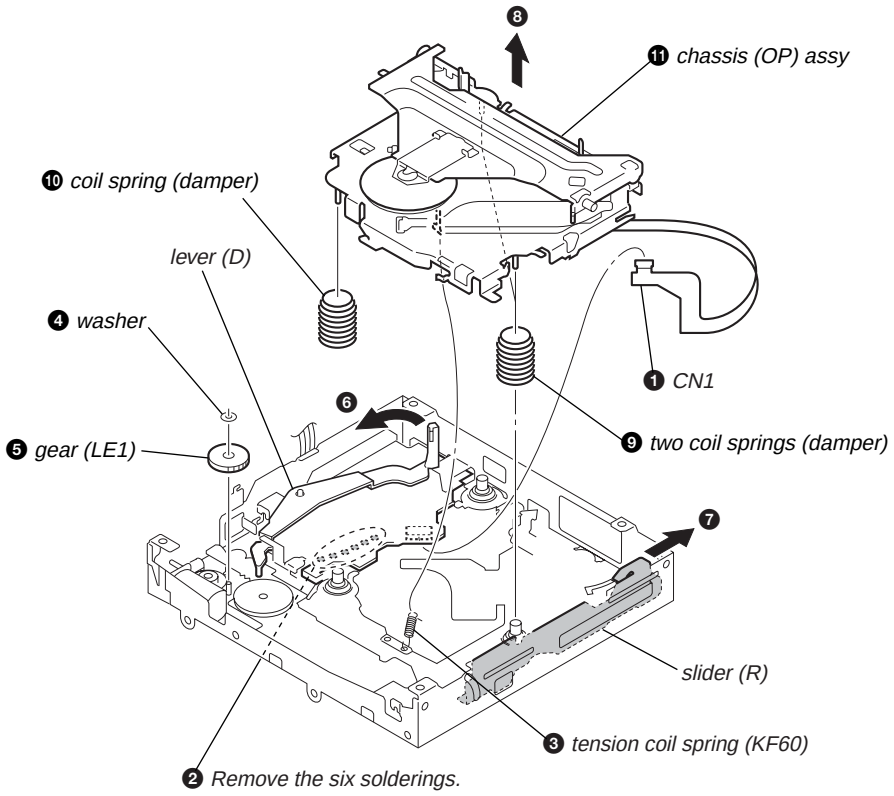
2-4. CHASSIS (T) SUB ASSY



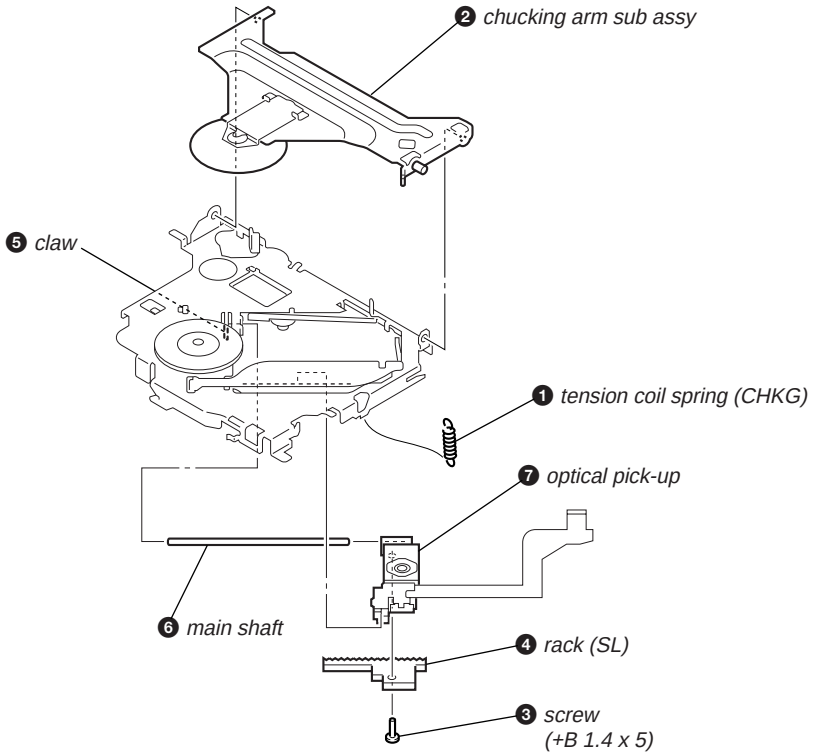
2-5. ROLLER ARM ASSY



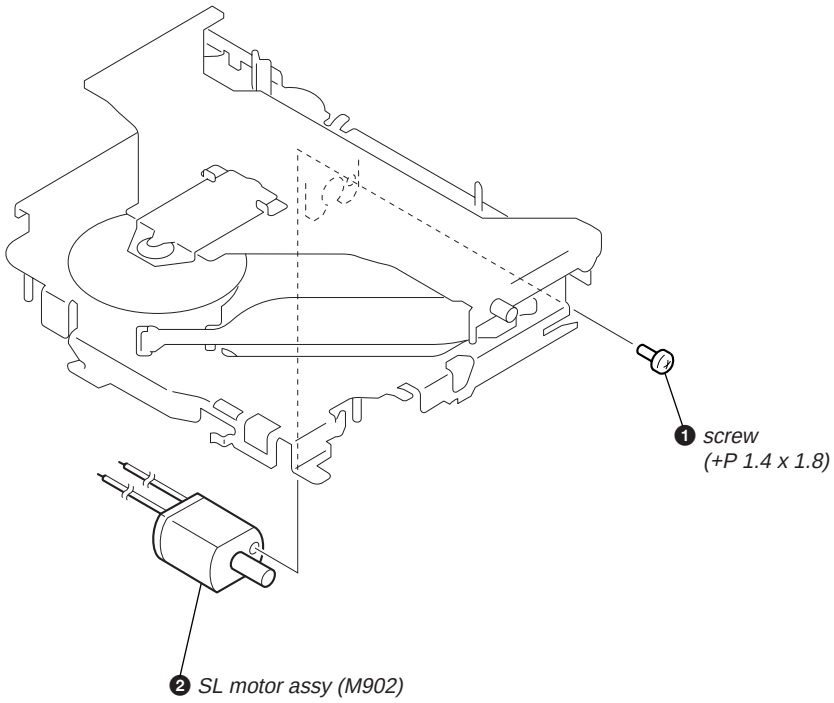
2-6. CHASSIS (OP) ASSY



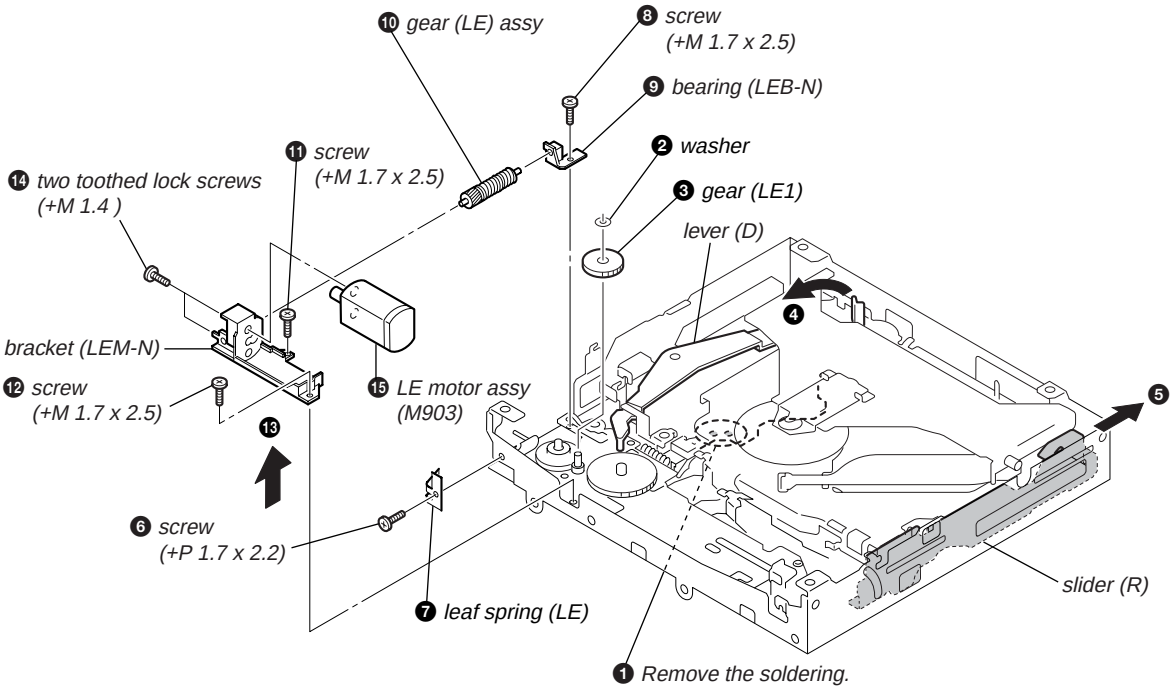
2-7. OPTICAL PICK-UP



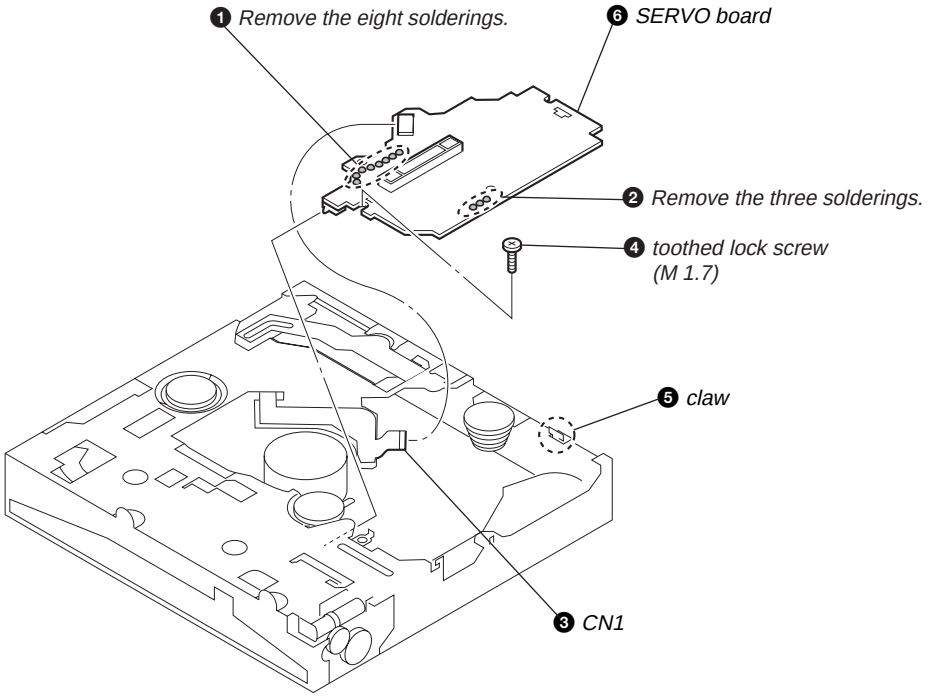
2-8. SL MOTOR ASSY (M902)



2-9. LE MOTOR ASSY (M903)

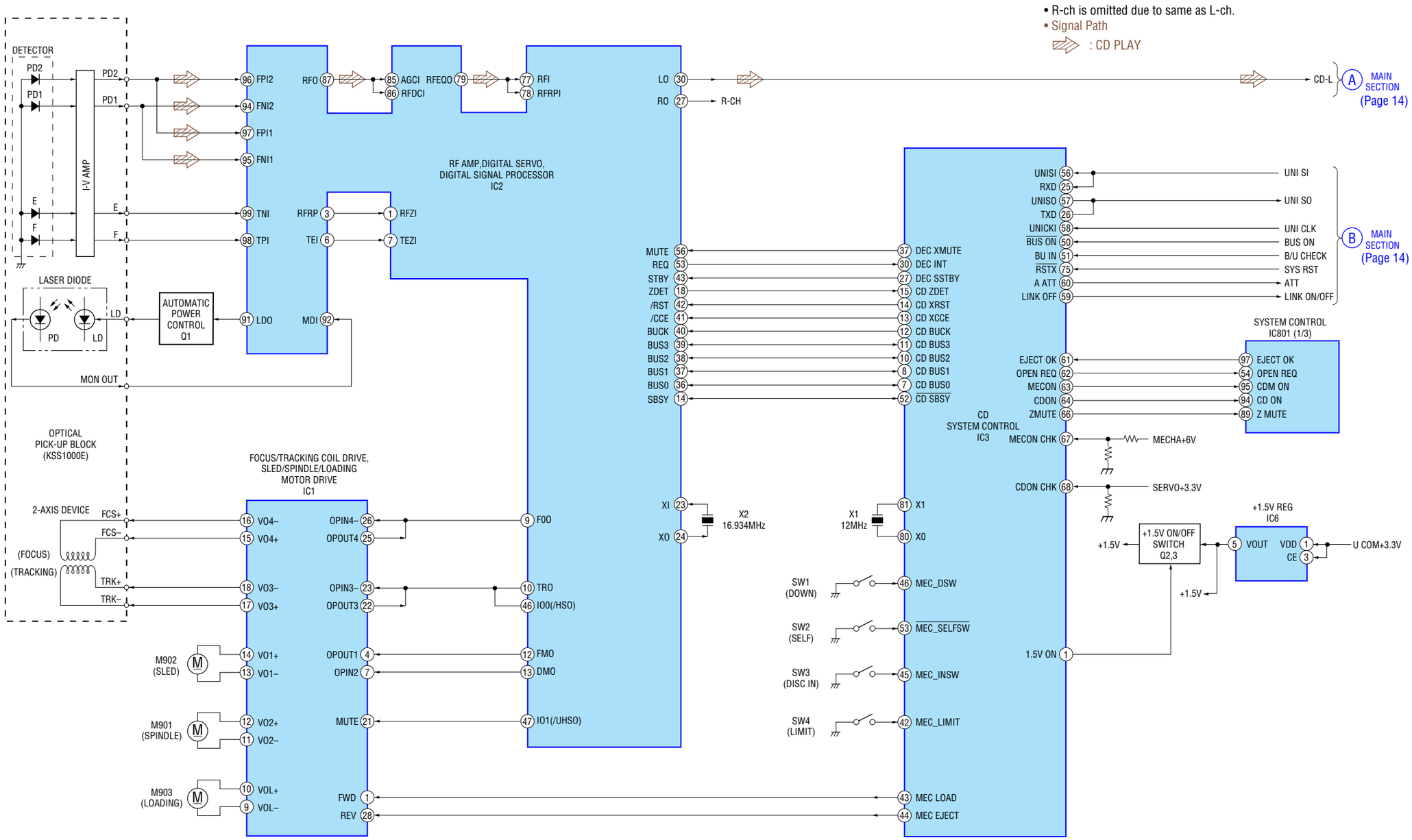


2-10. SERVO BOARD

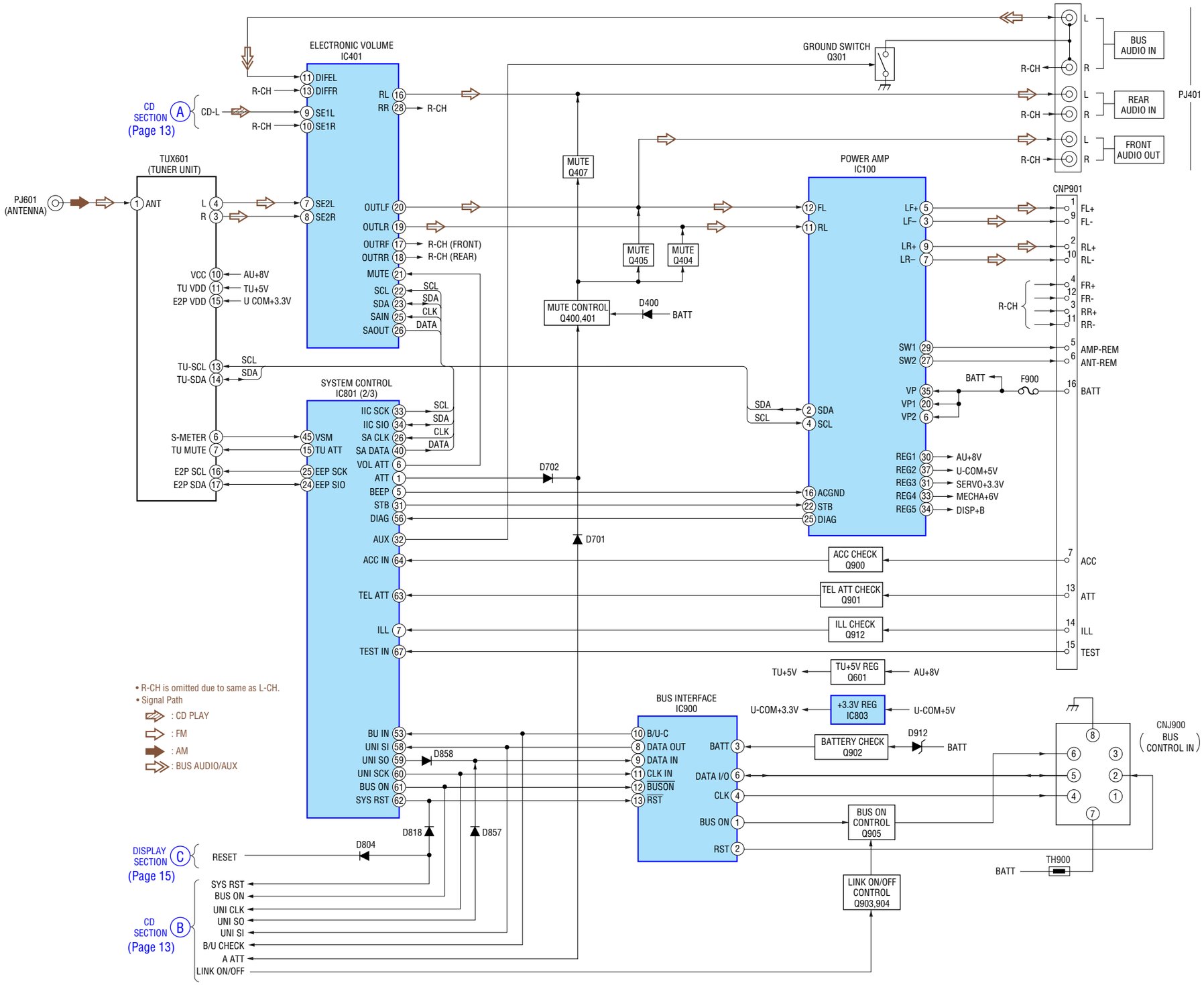


SECTION 3
DIAGRAMS

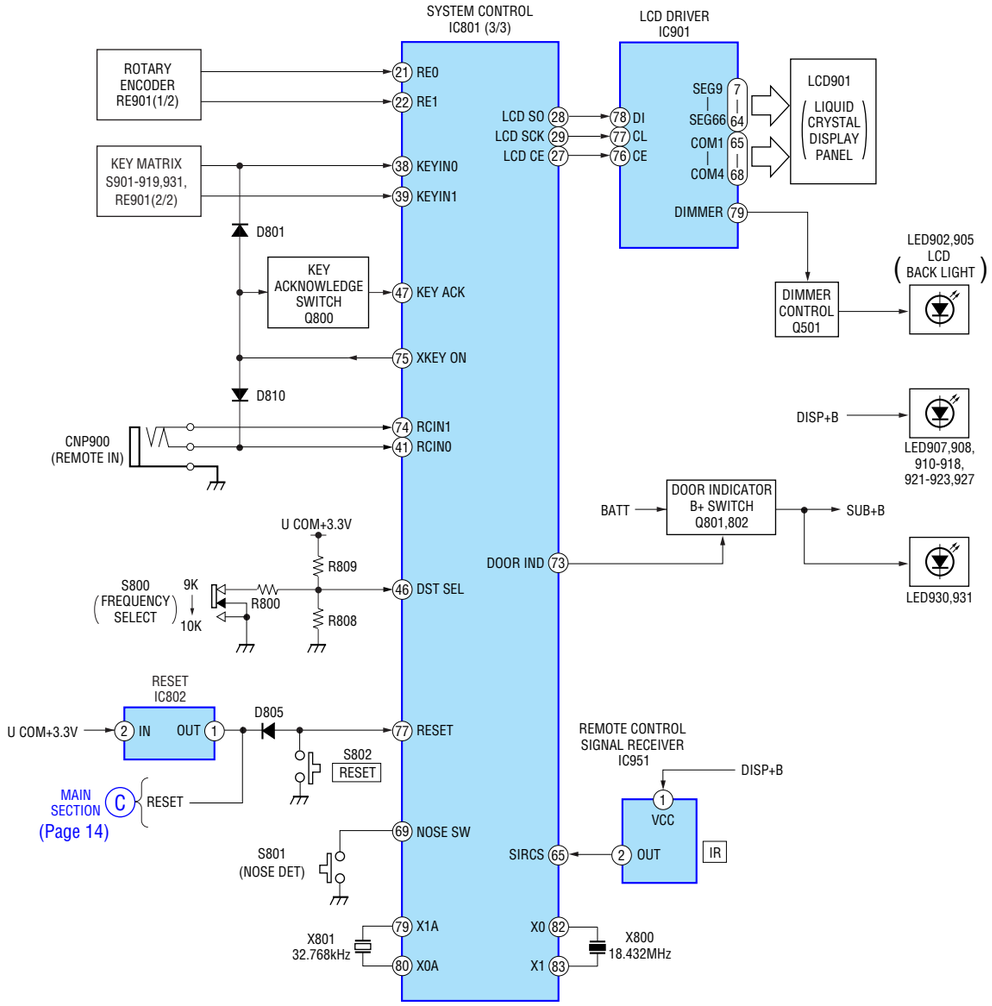
3-1. BLOCK DIAGRAM — CD SECTION —



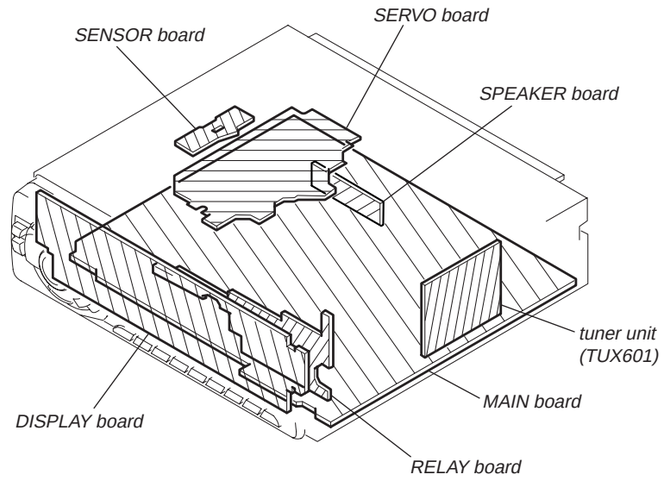
3-2. BLOCK DIAGRAM — MAIN SECTION —



3-3. BLOCK DIAGRAM — DISPLAY SECTION —



3-4. CIRCUIT BOARDS LOCATION



• NOTE FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

THIS NOTE IS COMMON FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS.
(In addition to this, the necessary note is printed in each block.)

For schematic diagrams.

Note:

- All capacitors are in µF unless otherwise noted. (p: pF) 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- △ : internal component.
- ▭ : panel designation.

Note:	**Note:**
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une piéce portant le numéro spécifié.

- ▬▬ : B+ Line.
- ▬ ▬ ▬ : B– Line.
- ▭ : adjustment for repair.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
- CD mechanism section (1/2), (2/2)
  no mark : CD PLAY
- Main (1/3), (2/3), (3/3) and Display sections
  no mark : FM
  ( ) : AM
  < > : CD PLAY
  * : Impossible to measure
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ⇨ : CD PLAY
  ⇨ : FM
  ➡ : AM
  ⇨ : BUS AUDIO

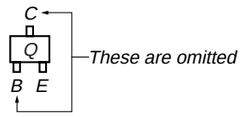
For printed wiring boards.

Note:

- o—— : parts extracted from the component side.
- —— : parts extracted from the conductor side.
- ○ : Through hole.
- ▬ : Pattern from the side which enables seeing.

(The other layers' patterns are not indicated.)

Caution:	
Pattern face side: (Side B)	Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Side A)	Parts on the parts face side seen from the parts face are indicated.



These are omitted

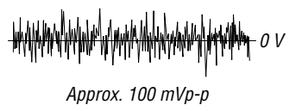
These are omitted

These are omitted

• WAVEFORMS

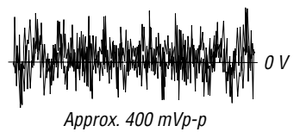
— SERVO BOARD — (CD PLAY)

① IC2 ④ (FEI)



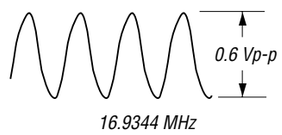
50 mV/DIV, 5 msec/DIV

② IC2 ⑥ (TEI)



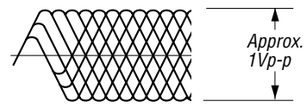
200 mV/DIV, 5 msec/DIV

③ IC2 ㉓ (XI)



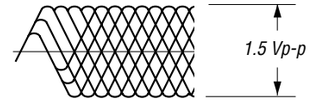
0.2 V/DIV, 0.2 µsec/DIV

④ IC2 ㊼ (RFI)



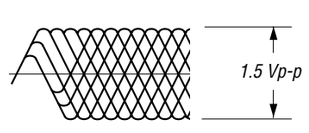
0.5 V/DIV, 0.5 µsec/DIV

⑤ IC2 ㊹ (FNI2), ㊺ (FNI1)



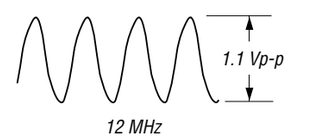
0.5 V/DIV, 0.5 µsec/DIV

⑥ IC2 ㊻ (FPI2), ㊼ (FPI1)



0.5 V/DIV, 0.5 µsec/DIV

⑦ IC3 ㉛ (X1)



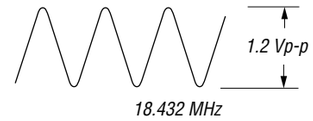
0.5 V/DIV, 0.2 µsec/DIV

— MAIN BOARD —

① IC801 ㊵ (XOA)

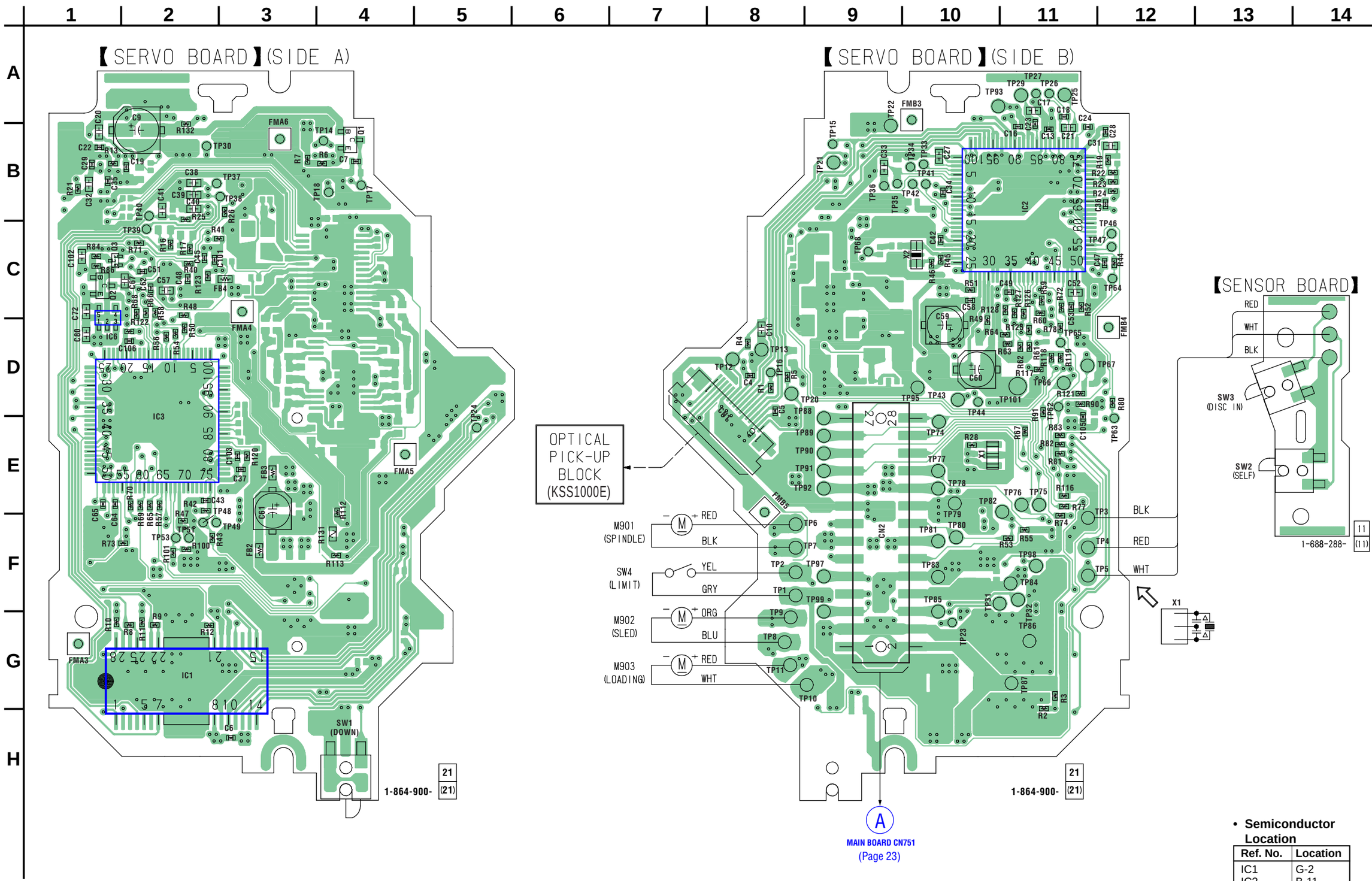
0.2 V/DIV, 20 µsec/DIV

② IC801 ㊸ (X1)



0.5 V/DIV, 0.1 µsec/DIV

3-5. PRINTED WIRING BOARDS — CD MECHANISM SECTION — **• Refer to page 15 for Circuit Boards Location.** **: Uses unleaded solder.**

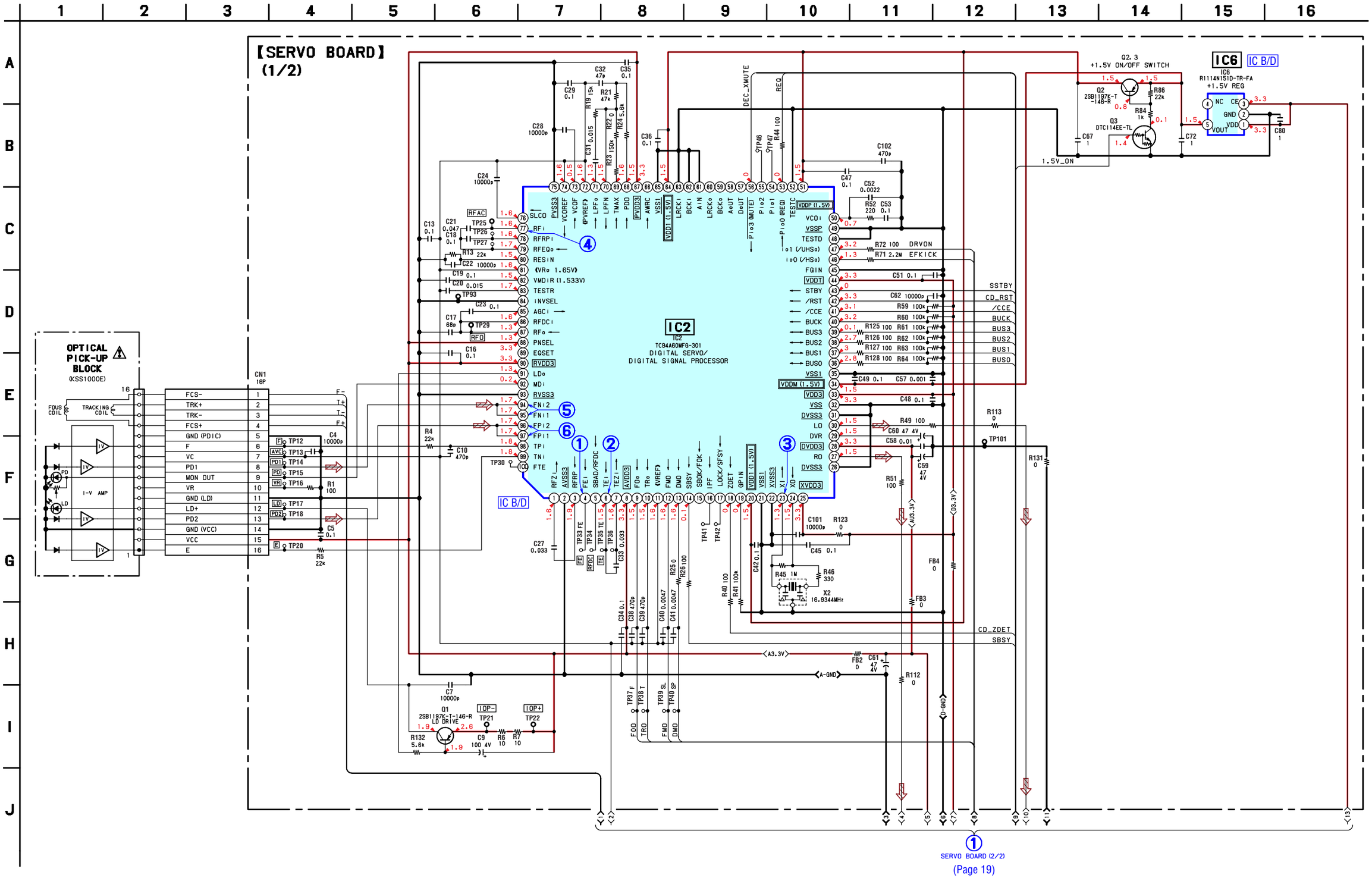


- **Semiconductor Location**

Ref. No.	Location
IC1	G-2
IC2	B-11
IC3	D-2
IC6	D-1
Q1	B-4
Q2	C-1
Q3	C-1

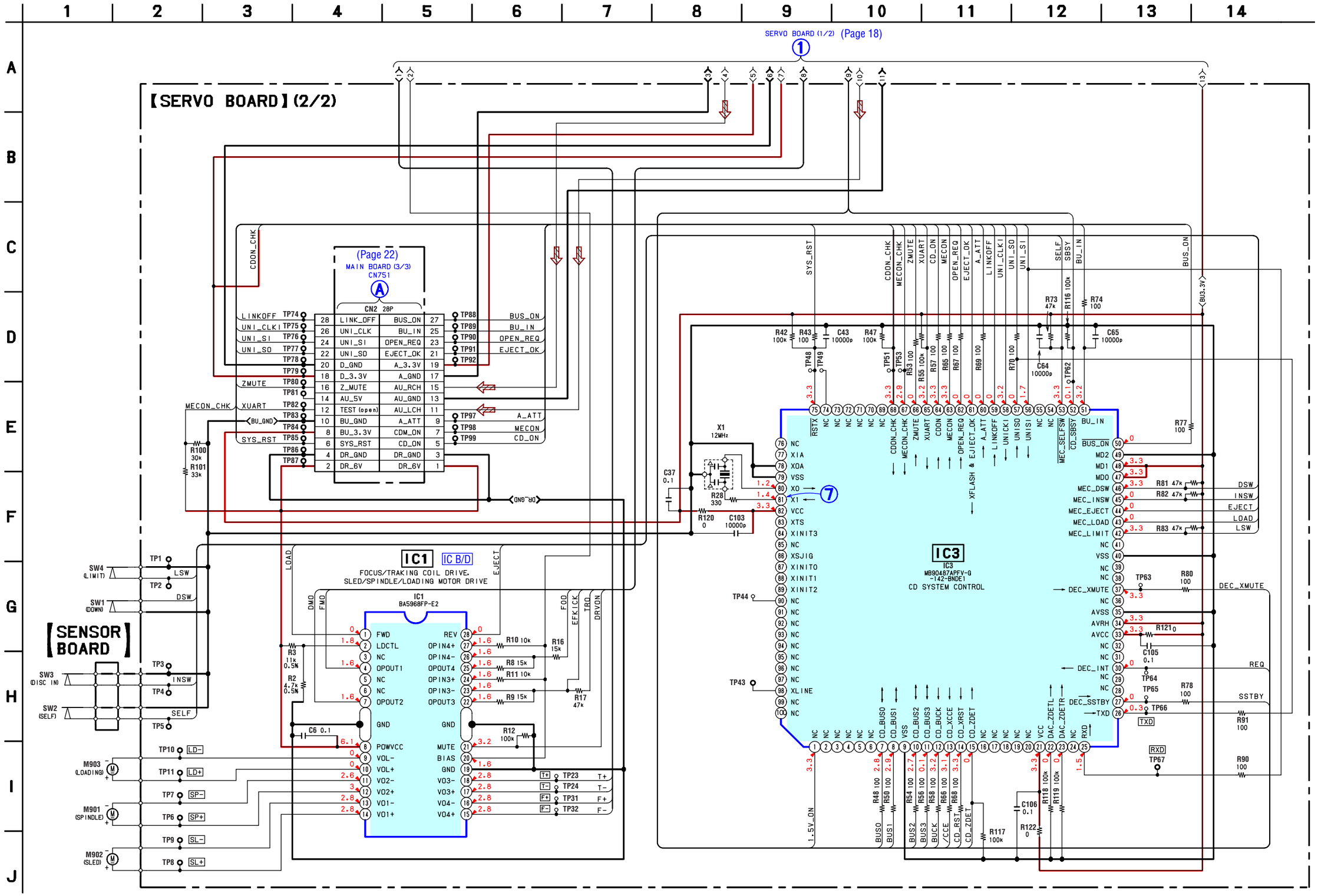
3-6. SCHEMATIC DIAGRAM — CD MECHANISM SECTION (1/2) —

• Refer to page 16 for Waveforms.
• Refer to page 27 for IC Block Diagrams.

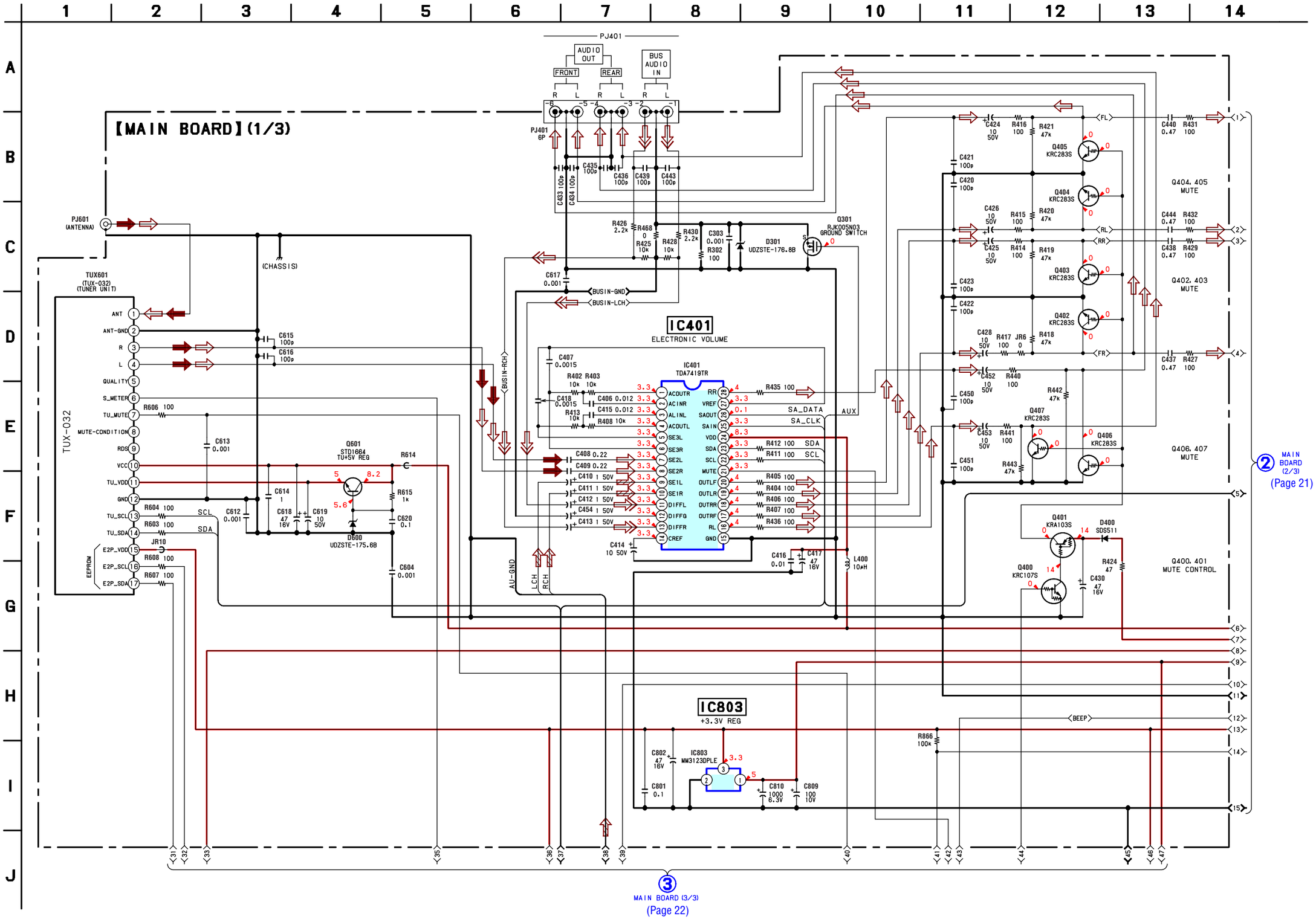


• Refer to page 16 for Waveform.
• Refer to page 28 for IC Block Diagram.
• Refer to page 29 for IC Pin Descriptions.

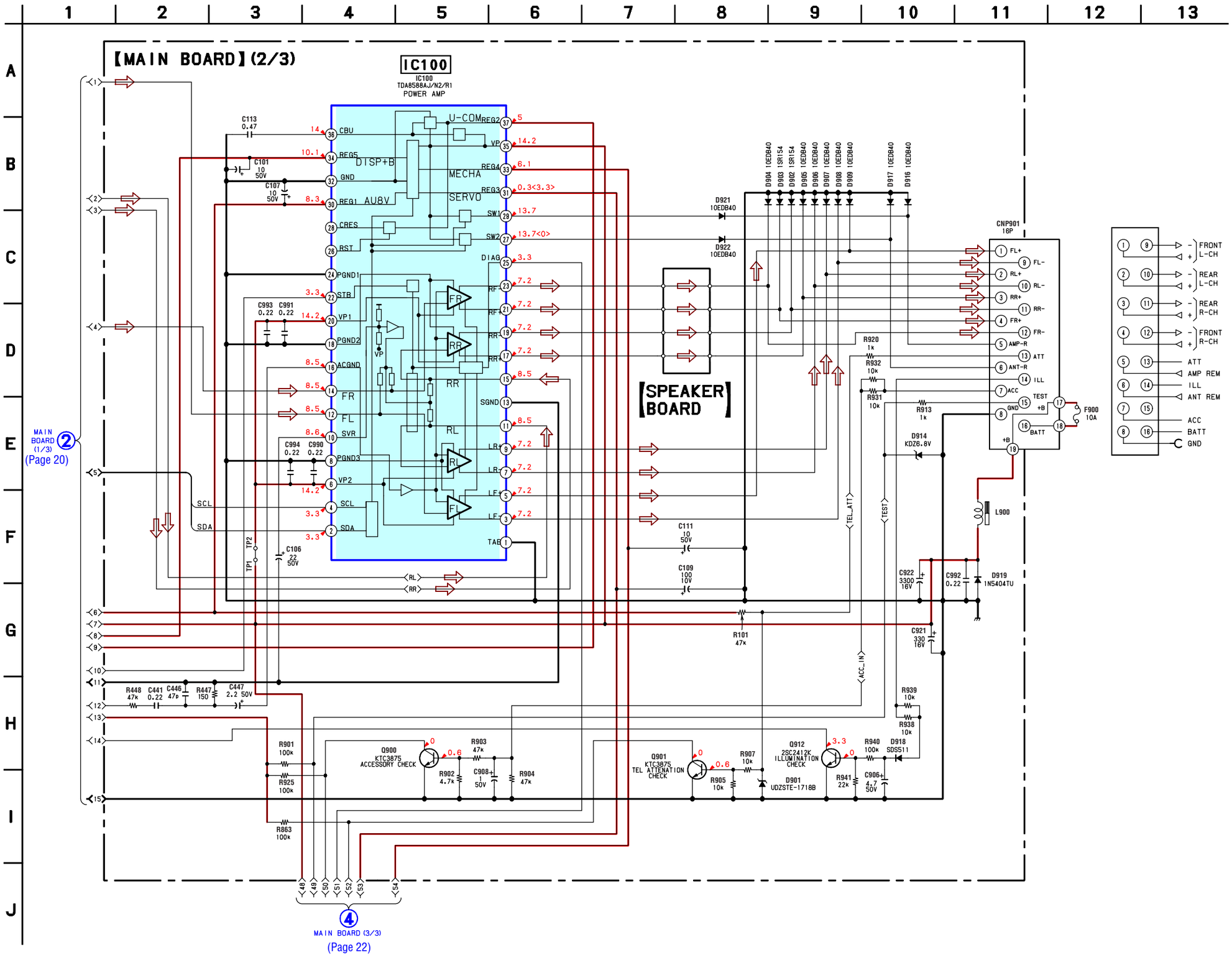
3-7. SCHEMATIC DIAGRAM — CD MECHANISM SECTION (2/2) —



3-8. SCHEMATIC DIAGRAM — MAIN SECTION (1/3) — • Refer to page 31 for IC Pin Descriptions.

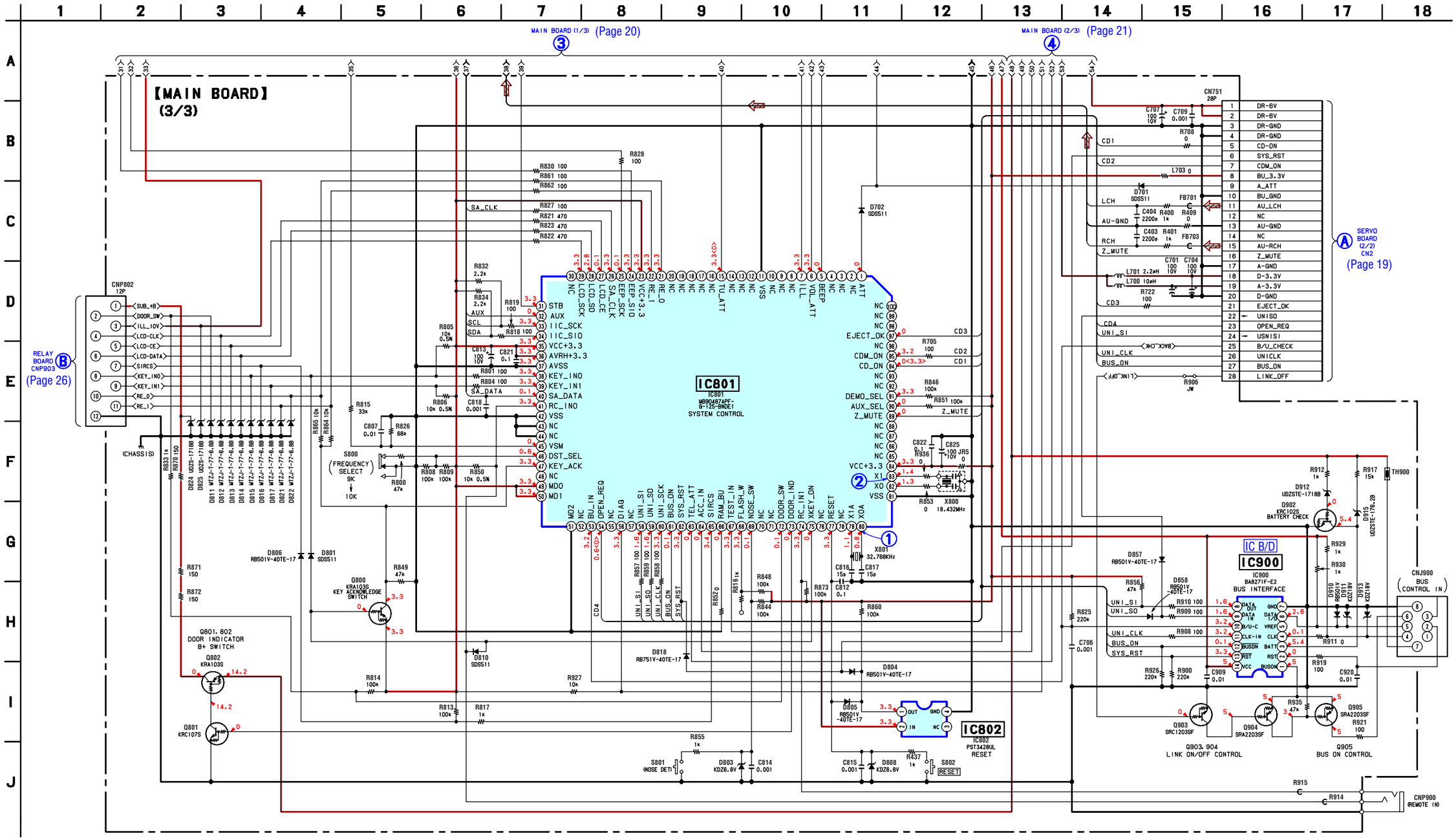


3-9. SCHEMATIC DIAGRAM — MAIN SECTION (2/3) —

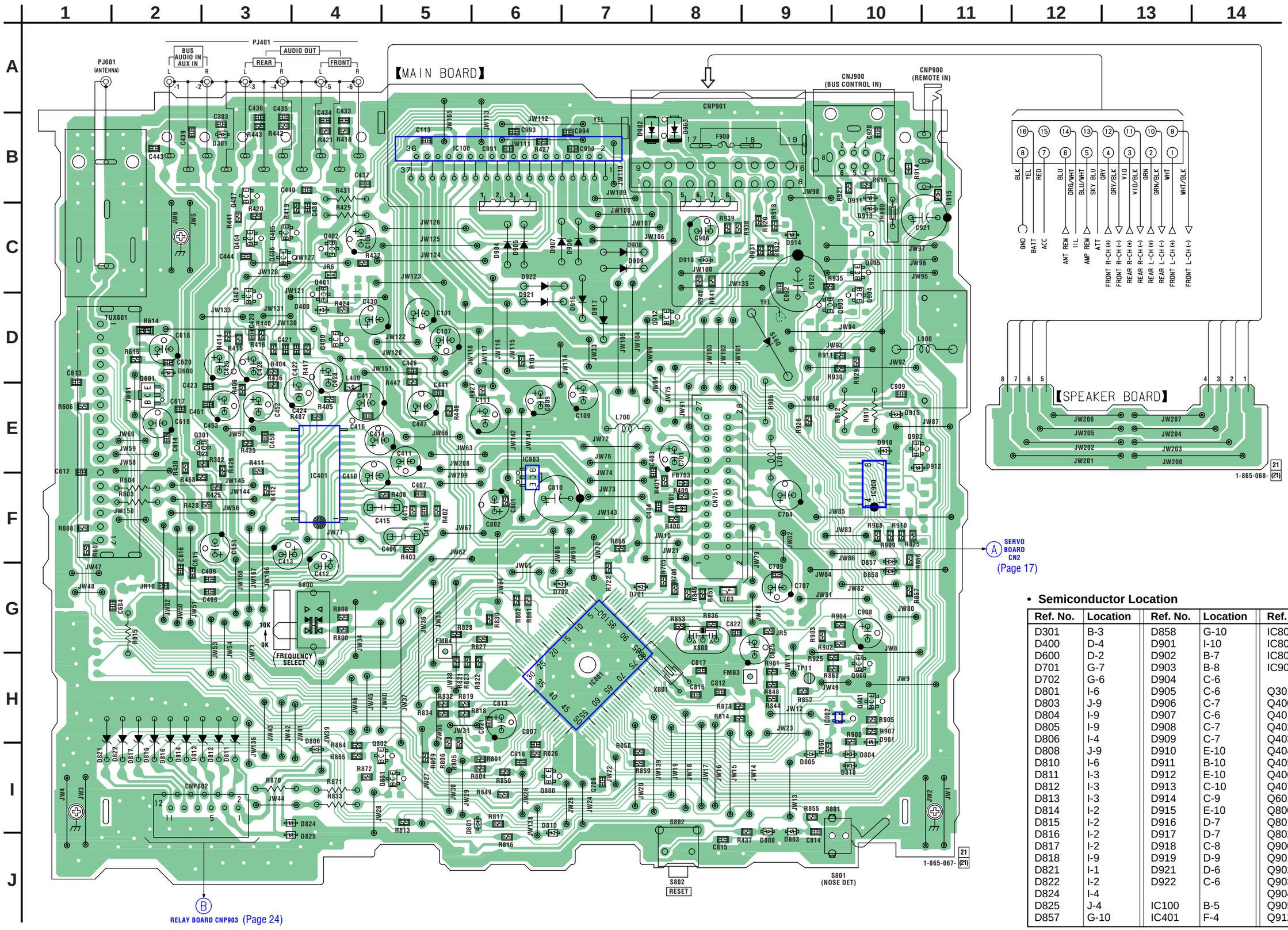


3-10. SCHEMATIC DIAGRAM — MAIN SECTION (3/3) —

• Refer to page 16 for Waveforms.
• Refer to page 28 for IC Block Diagram.
• Refer to page 32 for IC Pin Descriptions.


【MAIN BOARD】
(3/3)
MAIN BOARD (1/3) (Page 20)
MAIN BOARD (2/3) (Page 21)
IC801
IC801
M99Q407APF-
0-125-GN0E1
SYSTEM CONTROL
IC802
IC802
PST3428UL
RESET
IC900
IC900
BA8271F-E2
BUS INTERFACE
IC B/D
CN751
28P
SERVO BOARD (2/2) CN2 (Page 19)
RELAY BOARD CNP903 (Page 26)
CNP802
12P
CNJ900
BUS CONTROL IN
CNP900
REMOTE IN
Q801, 802
DOOR INDICATOR
B+ SWITCH
Q800
KRA103S
KEY ACKNOWLEDGE SWITCH
Q801
KRC107S
Q802
KRA103S
Q902
KRC102S
BATTERY CHECK
Q903
SRC1203SF
Q904
SRA2203SF
Q903, 904
LINK ON/OFF CONTROL
Q905
BUS ON CONTROL
S800
(FREQUENCY SELECT)
9K
10K
S801
(NOSE DET)
S802
RESET
X800
18.432MHz
X801
32.768KHz
TH900
D701
SDS511
D702
SDS511
D801
SDS511
D806
RBS01V-40TE-17
D804
RBS01V-40TE-17
D805
RBS01V-40TE-17
D810
SDS511
D818
RB751V-40TE-17
D857
RBS01V-40TE-17
D858
RBS01V-40TE-17
D803
KDZ6.8V
D808
KDZ6.8V
D912
UDZSTE-1718B
D915
UDZSTE-176.2B
D909
KDZ18V
D910
KDZ18V
D911
KDZ18V
D913
KDZ18V
SA_CLK
SA_DATA
AUX
SCL
SDA
CHASSIS
RELAY
SERVO
BACK_CHK
LINK_OFF
R906
JW
R828
100
R722
100
L700 10mH
L701 2.2mH
L703 0
FB701
FB703
R708
0
R705
100
R846
100k
R851
100k
R853
0
R636
0
R906
JW
R912
1k
R917
15k
R929
1k
R930
1k
R911
0
R919
100
R921
100
R935
47k
R856
47k
R910
100
R909
100
R908
100
R926
220k
R900
220k
R825
220k
R706
0.001
C707
100
10V
C709
0.001
C701
100
10V
C704
100
10V
C404
2200p
C403
2200p
R400
1k
R401
1k
R409
0
C822
0.1
C825
100
JR5
10V
C909
0.01
C920
0.01
C706
0.001
C816
15p
C817
15p
C812
0.1
C813
100
10V
C821
0.1
C818
0.001
C807
0.01
C815
0.001
C814
0.001
R832
2.2k
R834
2.2k
R805
10k
0.5W
R806
10k 0.5W
R815
33k
R826
68k
R808
100k
R809
100k
R650
10k 0.5%
R800
47k
R849
47k
R814
100k
R813
100k
R817
1k
R927
10k
R855
1k
R437
1k
R819
100
R818
100
R801
100
R804
100
R830
100
R861
100
R862
100
R827
100
R821
470
R823
470
R822
470
R852
0
R816
1k
R848
100k
R844
100k
R873
100k
R860
100k
R857
100
R859
100
R858
100
R871
150
R872
150
R833
1k
R870
150
R865
10k
R864
10k
R824
UDZS-17.5B
R825
UDZS-17.5B
R811
UDZS-17.5B
R812
UDZS-17.5B
R813
UDZS-17.5B
R814
UDZS-17.5B
R815
UDZS-17.5B
R816
UDZS-17.5B
R817
UDZS-17.5B
R822
UDZS-17.5B
R821
UDZS-17.5B
R915
R914
C922
0.1
R936
0
C915
0.001
R907
0
R904
0
R905
0
R903
0
R902
0
R901
0
R900
0
R909
0
R908
0
R907
0
R906
0
R905
0
R904

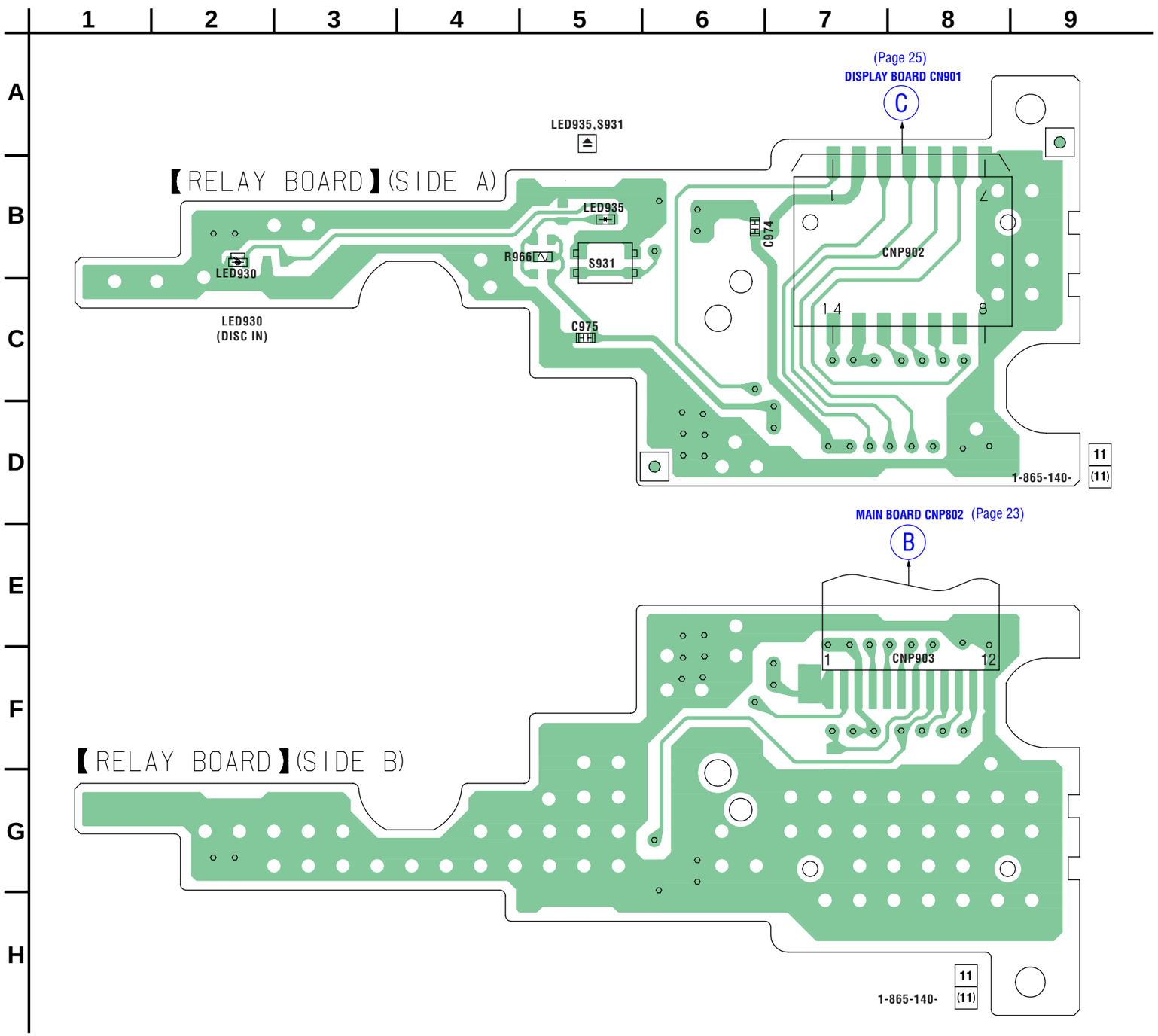
3-11. PRINTED WIRING BOARDS — MAIN SECTION — • Refer to page 15 for Circuit Boards Location. : Uses unleaded solder.



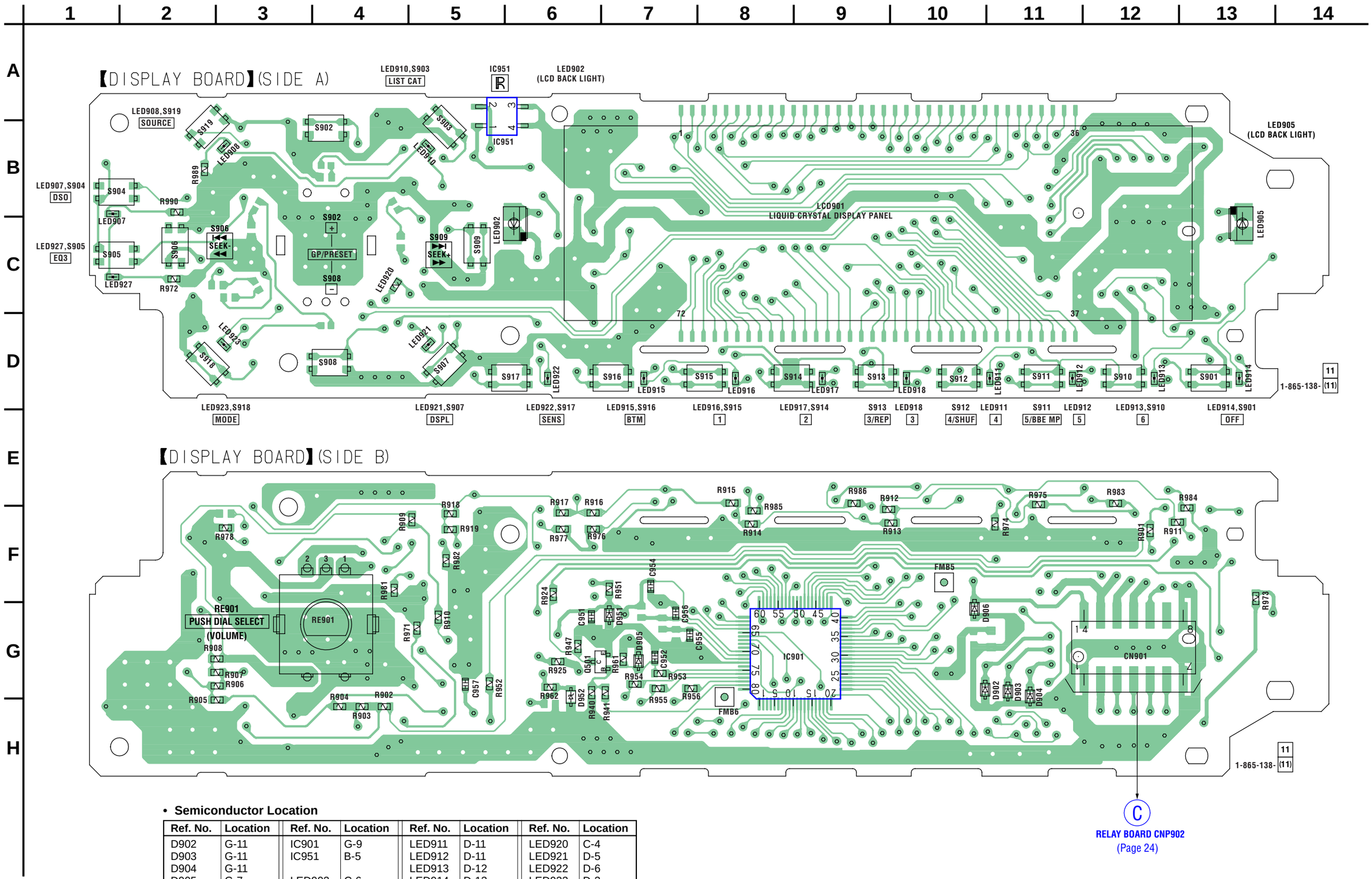
- **Semiconductor Location**

Ref. No.	Location	Ref. No.	Location	Ref. No.	Location
D301	B-3	D858	G-10	IC801	H-7
D400	D-4	D901	I-10	IC802	H-10
D600	D-2	D902	B-7	IC803	E-6
D701	G-7	D903	B-8	IC900	F-10
D702	G-6	D904	C-6		
D801	I-6	D905	C-6	Q301	E-3
D803	J-9	D906	C-7	Q400	D-4
D804	I-9	D907	C-6	Q401	C-4
D805	I-9	D908	C-7	Q402	C-4
D806	I-4	D909	C-7	Q403	D-3
D808	J-9	D910	E-10	Q404	C-3
D810	I-6	D911	B-10	Q405	C-3
D811	I-3	D912	E-10	Q406	C-3
D812	I-3	D913	C-10	Q407	B-3
D813	I-3	D914	C-9	Q601	E-2
D814	I-2	D915	E-10	Q800	I-6
D815	I-2	D916	D-7	Q801	I-5
D816	I-2	D917	D-7	Q802	I-4
D817	I-2	D918	C-8	Q900	H-10
D818	I-9	D919	D-9	Q901	H-10
D821	I-1	D921	D-6	Q902	E-10
D822	I-2	D922	C-6	Q903	D-10
D824	I-4			Q904	D-10
D825	J-4	IC100	B-5	Q905	C-10
D857	G-10	IC401	F-4	Q912	D-8

3-12. PRINTED WIRING BOARD — RELAY SECTION — • Refer to page 15 for Circuit Boards Location. : Uses unleaded solder.



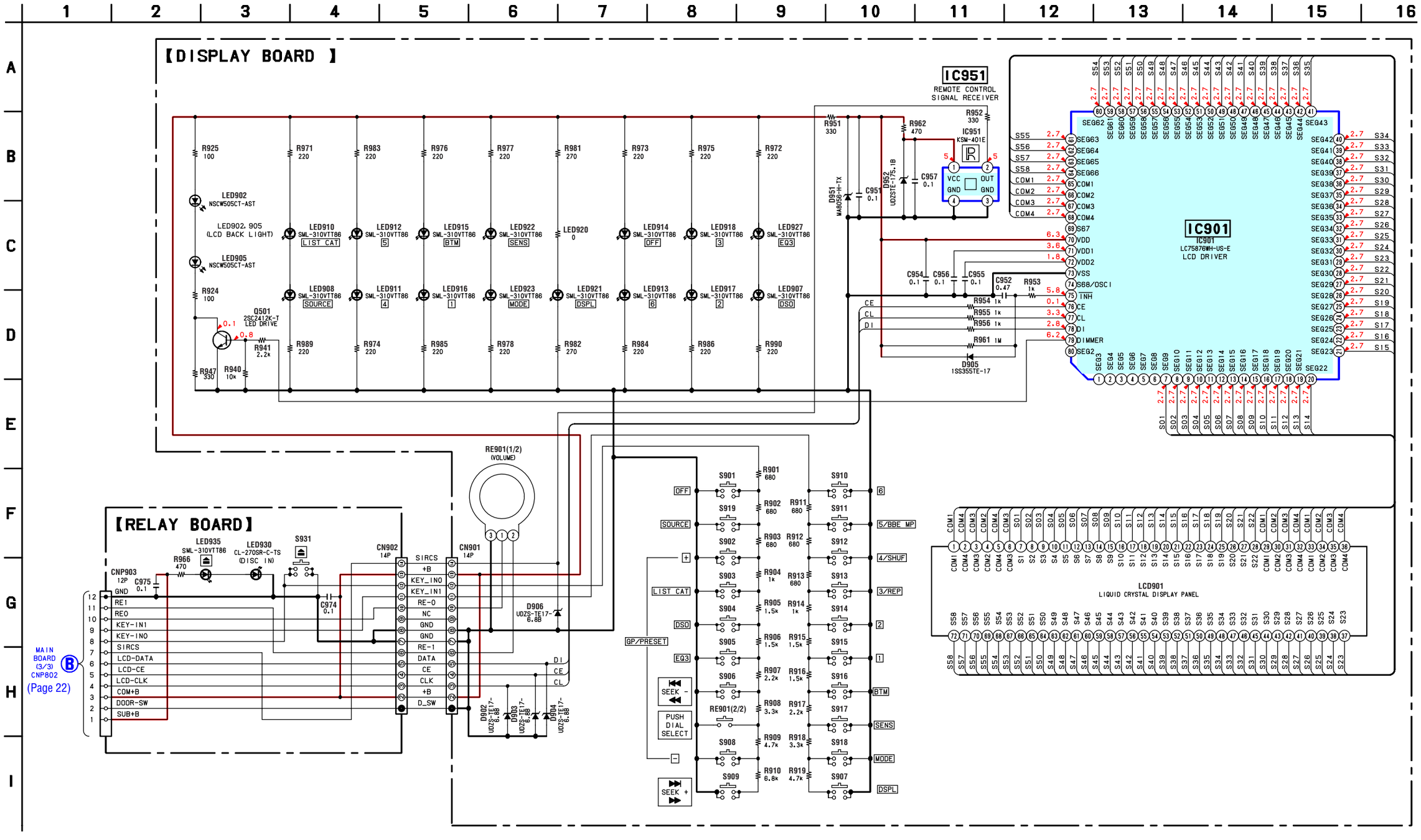
3-13. PRINTED WIRING BOARD — DISPLAY SECTION — • Refer to page 15 for Circuit Boards Location. : Uses unleaded solder.



• **Semiconductor Location**

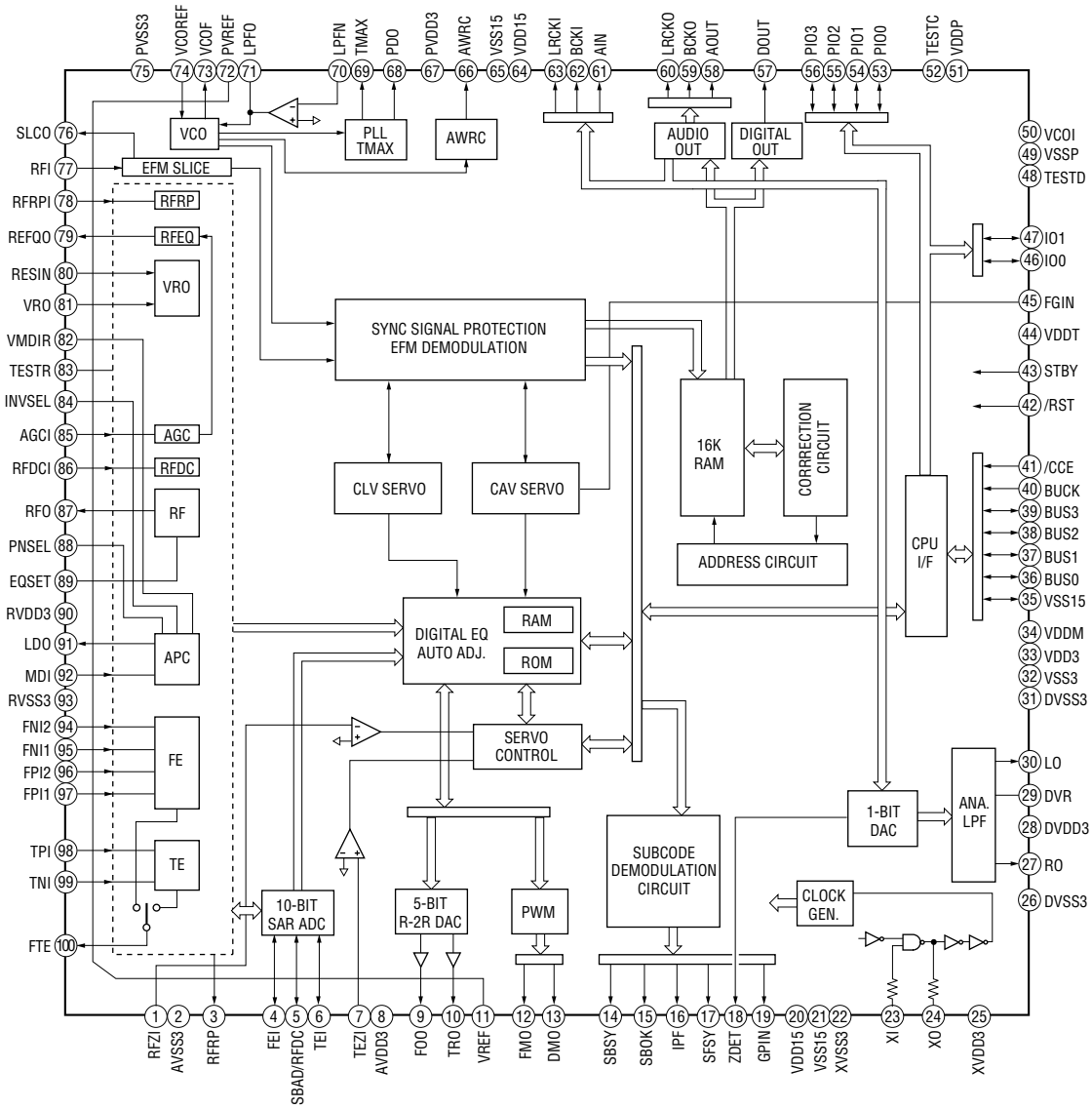
Ref. No.	Location	Ref. No.	Location	Ref. No.	Location	Ref. No.	Location
D902	G-11	IC901	G-9	LED911	D-11	LED920	C-4
D903	G-11	IC951	B-5	LED912	D-11	LED921	D-5
D904	G-11			LED913	D-12	LED922	D-6
D905	G-7	LED902	C-6	LED914	D-13	LED923	D-3
D906	G-10	LED905	C-13	LED915	D-7	LED927	C-1
D951	G-7	LED907	B-1	LED916	D-8		
D952	G-6	LED908	B-3	LED917	D-9	Q501	G-6
		LED910	B-5	LED918	D-10		

3-14. SCHEMATIC DIAGRAM — DISPLAY SECTION —

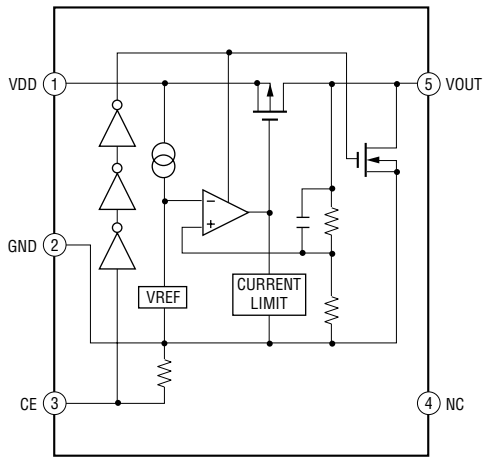


• IC BLOCK DIAGRAMS

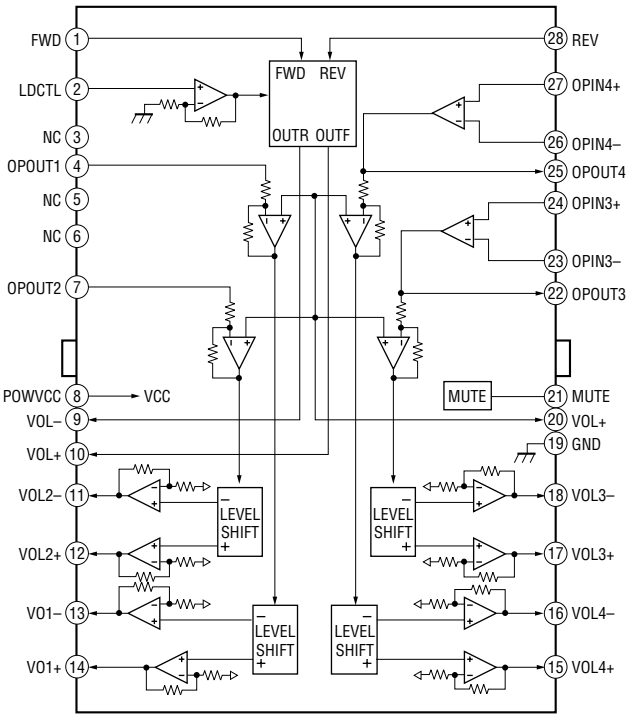
IC2 TC94A60MFG-301 (SERVO Board (1/2))



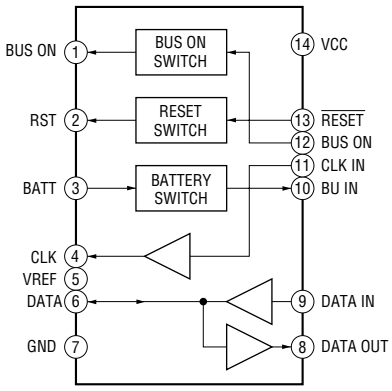
IC6 R1114N151D-TR-FA (SERVO Board (1/2))



IC1 BA5968FP-E2 (SERVO Board (2/2))



IC900 BA8271F-E2 (MAIN Board (3/3))



• IC PIN DESCRIPTIONS

• IC3 MB90487APFV-G-142-BNDE1 (CD SYSTEM CONTROL) (SERVO BOARD (2/2))

Pin No.	Pin Name	I/O	Pin Description
1	NC	O	Servo 1.5 V power supply control signal output
2 to 6	NC	—	Not used. (Open)
7	CD BUS0	I/O	Bus data signal input/output 0
8	CD BUS1	I/O	Bus data signal input/output 1
9	VSS	—	Ground pin
10	CD BUS2	I/O	Bus data signal input/output 2
11	CD BUS3	I/O	Bus data signal input/output 3
12	CD BUCK	O	Bus clock signal output
13	CD XCCE	O	Chip enable signal output
14	CD XRST	O	Reset signal output
15	CD ZDET	I	Zero detection signal input
16 to 20	NC	—	Not used. (Open)
21	VCC	—	Power supply pin (+3.3 V)
22	DAC ZDETL	I	Zero data detection signal input (L-ch)
23	DAC ZDETR	I	Zero data detection signal input (R-ch)
24	NC	—	Not used. (Open)
25	RXD	I	UART RXD data signal input (MCBUS/Flash data input)
26	TXD	O	UART TXD data signal output (MCBUS/Flash data output)
27	DEC SSTBY	O	SRAM STANDBY mode control signal output
28, 29	NC	—	Not used. (Open)
30	DEC INT	I	Request signal input
31, 32	NC	—	Not used. (Open)
33	AVCC	—	Power supply pin (+3.3 V) for A/D converter
34	AVRH	—	External reference voltage for A/D converter
35	AVSS	—	Ground pin
36	NC	—	Not used. (Open)
37	DEC XMUTE	O	Mute signal output L: mute
38, 39	NC	—	Not used. (Open)
40	VSS	—	Ground pin
41	NC	—	Not used. (Open)
42	MEC LIMIT	I	Sled limit in detection switch signal input
43	MEC LOAD	O	Loading motor signal output (Load direction)
44	MEC EJECT	O	Loading motor signal output (Eject direction)
45	MEC INSW	I	Pack-in detection signal input
46	MEC DSW	I	Chucking end detection switch signal input
47, 48	MD0, MD1	I	CPU operation mode designation signal input (Connect to Vcc.)
49	MD2	I	CPU operation mode designation signal input (Connect to Vss.)
50	$\overline{\text{BUS ON}}$	I	Bus on signal input L: bus on
51	BU IN	I	Backup on/off signal input H: backup on, L: backup off
52	$\overline{\text{CD SBSY}}$	I	SUBQ sync signal input L: interruption
53	$\overline{\text{MEC SELFSW}}$	I	Disc insert detection switch signal input L: disc in interruption
54, 55	NC	—	Not used. (Open)
56	UNISI	I	Serial data signal input
57	UNISO	O	Serial data signal output
58	UNICKI	I	Serial clock signal input
59	LINEOFF	O	Line off signal output
60	A ATT	O	Audio attenuation signal output H: ATT on
61	EJECT OK	I	Front panel open signal input H: eject
62	OPEN REQ	O	Front panel open/close request signal output H: open request
63	MECON	O	Mechanism deck power supply control signal output
64	CDON	O	Servo power supply control signal output

Pin No.	Pin Name	I/O	Pin Description
65	XUART	I	Sony-Bus/MC-Bus change signal input H: Sony-Bus, L: MC-Bus
66	ZMUTE	O	Zero detection mute signal output
67	MECON CHK	I	MECON rising detection signal input
68	CDON CHK	I	CDON rising detection signal input
69 to 74	NC	—	Not used. (Open)
75	$\overline{\text{RSTX}}$	I	System reset signal input
76	NC	—	Not used. (Open)
77	X1A	—	Sub-clock connect pin Not used in this set. (Open)
78	X0A	—	Sub-clock connect pin Not used in this set. (Connect to Vss.)
79	VSS	—	Ground pin
80	X0	I	Main-clock connect pin (12 MHz)
81	X1	O	Main-clock connect pin (12 MHz)
82	VCC	—	Power supply pin (+3.3 V)
83	XTS	I	Not used in this set. (Open)
84	XINIT3	I	Not used in this set. (Open)
85	NC	—	Not used. (Open)
86	XSJIG	I	Not used in this set. (Open)
87 to 89	XINIT0 to 2	I	Not used in this set. (Open)
90 to 97	NC	—	Not used. (Open)
98	XLINE	I	Not used in this set. (Open)
99, 100	NC	—	Not used. (Open)

• IC401 TDA7419TR (ELECTRONIC VOLUME) (MAIN BOARD (1/3))

Pin No.	Pin Name	I/O	Pin Description
1	ACOUTR	O	AC coupling R-ch signal output
2	ACINR	I	AC coupling R-ch signal input
3	ACINL	I	AC coupling L-ch signal input
4	ACOUTL	O	AC coupling L-ch signal output
5	SE3L	I	Single-ended input 3 L-ch
6	SE3R	I	Single-ended input 3 R-ch
7	SE2L	I	Single-ended input 2 L-ch
8	SE2R	I	Single-ended input 2 R-ch
9	SE1L	I	Single-ended input 1 L-ch
10	SE1R	I	Single-ended input 1 R-ch
11	DIFFL	I	Pseudo differential stereo signal input left
12	DIFFG	I	Pseudo differential stereo signal input common
13	DIFFR	I	Pseudo differential stereo signal input right
14	CREF	O	Reference capacitor connect pin
15	GND	—	Ground pin
16	RL	O	Second rear L-ch signal output
17	OUTRF	O	Front R-ch signal output
18	OUTRR	O	Rear R-ch signal output
19	OUTLR	O	Rear L-ch signal output
20	OUTLF	O	Front L-ch signal output
21	MUTE	I	External mute signal input
22	SCL	I	I2C bus serial clock signal input
23	SDA	I/O	I2C bus serial data signal input/output
24	VDD	—	Power supply pin (+8 V)
25	SAIN	I	Spectrum analyzer clock signal input
26	SAOUT	O	Spectrum analyzer data signal output
27	VREF	O	Voltage reference signal output
28	RR	O	Second rear R-ch signal output

• IC801 MB90487APF-G-125-BNDE1 (SYSTEM CONTROL) (MAIN BOARD (3/3))

Pin No.	Pin Name	I/O	Pin Description
1	ATT	O	Audio mute control signal output
2 to 4	NC	—	Not used in this set. (Open)
5	BEEP	O	Beep signal output to power amp IC
6	VOL ATT	O	Electrical volume ATT control output
7	ILL	I	Illumination check signal input for auto dimmer
8 to 10	NC	—	Not used in this set. (Open)
11	VSS	—	Ground pin
12 to 14	NC	—	Not used in this set. (Open)
15	TU ATT	O	Tuner mute control output
16 to 20	NC	—	Not used in this set. (Open)
21	RE 0	I	Rotary encoder signal input 0
22	RE 1	I	Rotary encoder signal input 1
23	VCC+3.3	—	Power supply pin (+3.3 V)
24	EEP SIO	I/O	Serial data signal input/output for EEPROM communication
25	EEP SCK	O	Serial clock signal output for EEPROM communication
26	SA CLK	O	Serial clock signal output for spectrum analyzer to electronic volume IC
27	LCD CE	O	Chip enable signal output to LCD driver IC Flash: serial in
28	LCD SO	O	Serial data signal output to LCD driver IC Flash: UART serial out
29	LCD SCK	O	Serial clock signal output to LCD driver IC
30	NC	—	Not used in this set. (Open)
31	STB	O	Standby signal output to power amp IC
32	AUX	O	Not used in this set. (Open)
33	IIC SCK	O	IIC bus serial clock signal output
34	IIC SIO	I/O	IIC bus serial data signal input/output
35	VCC+3.3	—	Power supply pin (+3.3 V) (for A/D converter)
36	AVRH+3.3	—	External reference power supply (+3.3 V) (for A/D converter)
37	AVSS	—	Ground pin (for A/D converter)
38, 39	KEY IN0, 1	I	Key signal input
40	SA DATA	I	Serial data signal input to electronic volume IC
41	RC IN0	I	Rotary commander key signal input
42	VSS	—	Ground pin
43, 44	NC	—	Not used in this set. (Fixed at “L”.)
45	VSM	I	S meter voltage detect signal input
46	DST SEL	I	Destination select pin
47	KEY ACK	I	Key acknowledge detect signal input
48	NC	—	Not used in this set. (Open)
49, 50	MD0, 1	I	Input for operation mode designation (Fixed at “H”.)
51	MD2	I	Input for operation mode designation (Fixed at “L”.)
52	NC	—	Not used in this set. (Open)
53	BU IN	I	Back up power supply detect signal input
54	OPEN REQ	I	Open REQ signal input
55	NC	—	Not used in this set. (Open)
56	DIAG	I	Condition input from power amp IC
57	NC	—	Not used in this set. (Open)
58	UNI SI	I	Serial data signal input
59	UNI SO	O	Serial data signal output
60	UNI SCK	O	Serial clock signal output
61	BUS ON	O	Bus on signal output
62	SYS RST	O	System reset signal output
63	TEL ATT	I	TEL ATT detect input
64	ACC IN	I	Accessory power supply detect signal input
65	SIRCS	I	Remote control signal (infrared rays) input

Pin No.	Pin Name	I/O	Pin Description
66	RAM BU	O	Not used in this set. (Fixed at “L”.)
67	TEST IN	I	Test mode detect signal input
68	FLASH W	I	Memory mode changeover signal input Normally “H” input (single chip mode) “L” after reset: Flash write mode
69	NOSE SW	I	Front panel attachment detect signal input “L” input: With panel, “H” input: Without panel
70, 71	NC	—	Not used in this set. (Open)
72	DOOR SW	I	Front panel open/close detect signal input “L” input: Panel close, “H” input: Panel open
73	DOOR IND	O	Sub panel power supply control signal output
74	RC IN1	I	Rotary commander shift key signal input
75	XKEY ON	O	Key power supply control signal output Pin ㊼ (KEY ACK) active: “L” output
76	NC	—	Not used in this set. (Open)
77	RESET	I	Reset signal input
78	NC	—	Not used in this set. (Open)
79	X1A	—	Oscillator connect pin (32.768 kHz)
80	X0A	—	Oscillator connect pin (32.768 kHz)
81	VSS	—	Ground pin
82	X0	—	Oscillator connect pin (18.432 MHz)
83	X1	—	Oscillator connect pin (18.432 MHz)
84	VCC+3.3	—	Power supply pin (+3.3 V)
85 to 88	NC	—	Not used in this set. (Open)
89	Z MUTE	I	Mechanism deck mute zero closs detect signal input
90	AUX SEL	I	AUX select signal input (Fixed at “L”.)
91	DEMO SEL	O	DEMO select signal output (Fixed at “H”.)
92, 93	NC	—	Not used in this set. (Open)
94	CD ON	I	Servo power supply control request signal input from CD mechanism
95	CDM ON	I	CD mechanism power supply control request signal input from CD mechanism
96	NC	—	Not used in this set. (Open)
97	EJECT OK	O	Front panel open information signal output to CD mechanism
98 to 100	NC	—	Not used in this set. (Open)

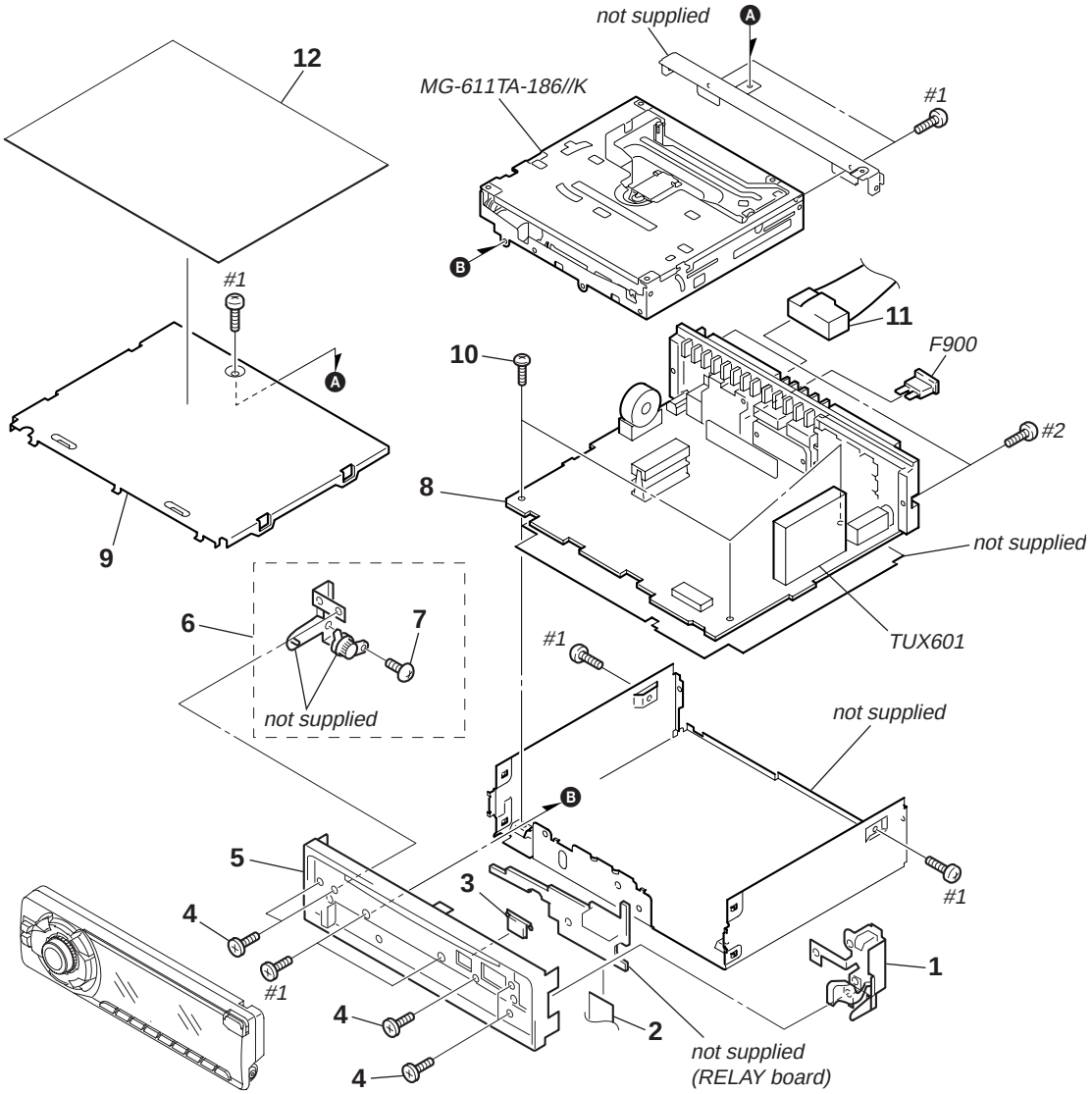
SECTION 4
EXPLODED VIEWS

NOTE:
- The mechanical parts with no reference number in the exploded views are not supplied.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts
  Example :
  KNOB, BALANCE (WHITE) ... (RED)
  ↑ ↑
  Parts Color Cabinet's Color
- Accessories are given in the last of this parts list.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

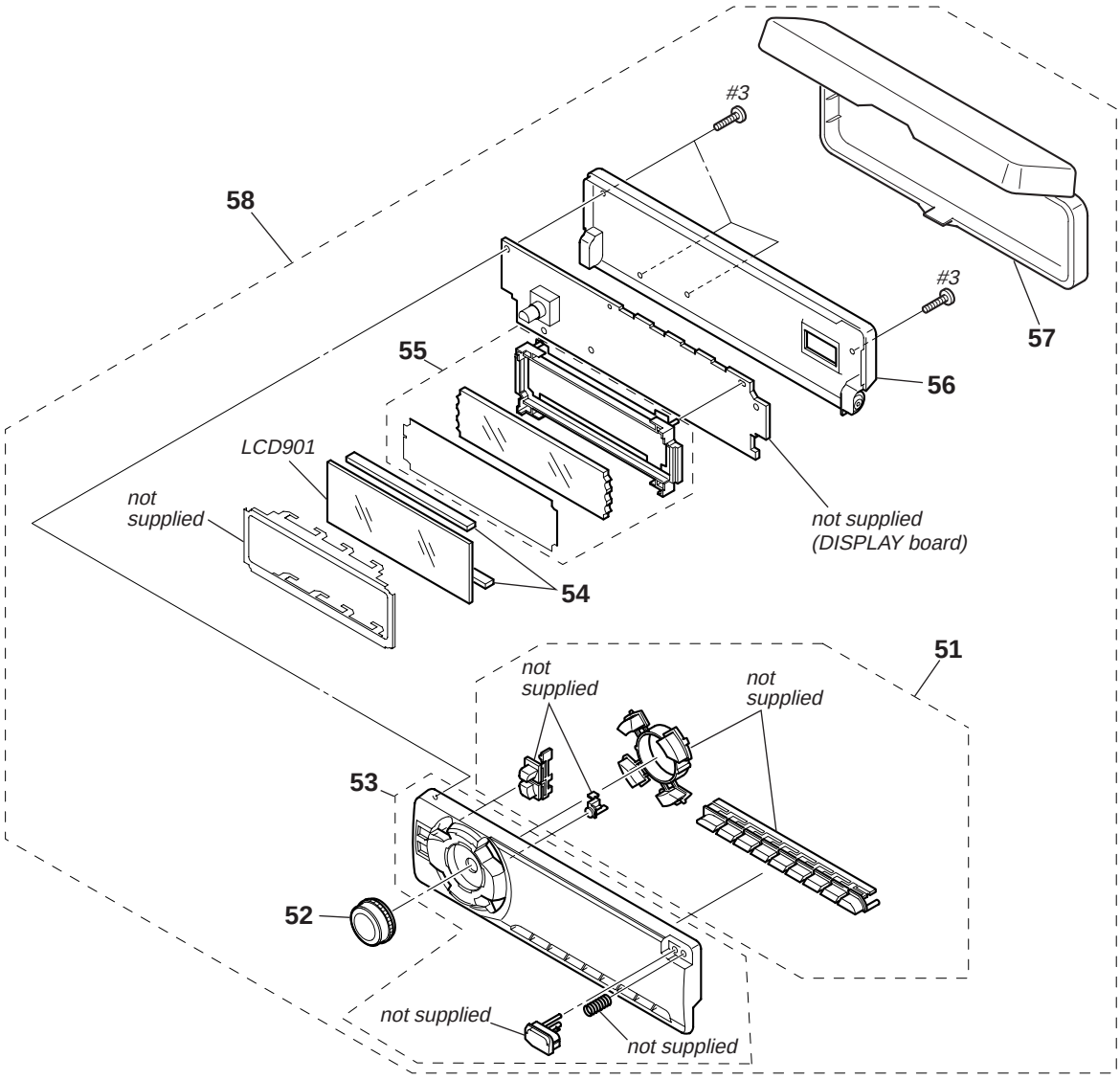
Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une piéce portant le numéro spécifié.

4-1. MAIN SECTION



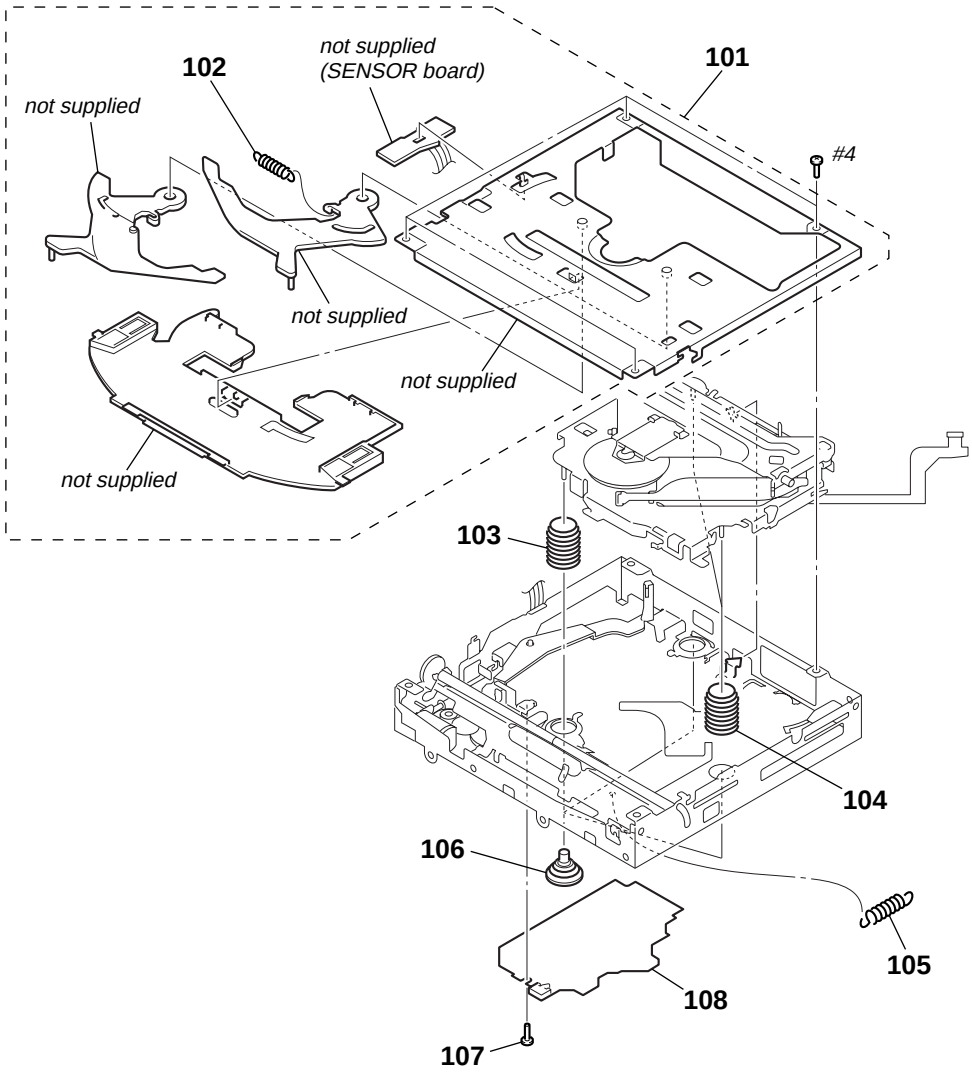
Ref. No.	Part No.	Description	Remark
1	X-3384-273-3	LOCK ASSY	
2	1-792-173-11	CABLE, FLAT (FFC) 12P	
3	3-246-030-02	BUTTON (EJECT)	
4	3-261-903-11	SCREW (+BTT M2X5)	
5	X-3384-270-1	PANEL ASSY (CD), SUB	
6	X-3384-271-3	GEAR ASSY	
7	3-713-786-51	SCREW +P 2X3	
8	A-1101-261-A	MAIN BOARD, COMPLETE	
* 9	3-246-006-31	COVER	
10	3-922-535-11	SCREW (+BTT)	
11	1-776-207-72	CORD (WITH CONNECTOR) (POWER)	
12	2-548-679-01	PROTECTOR, SHEET	
F900	1-532-877-11	FUSE (BLADE TYPE) (AUTO FUSE) 10A	
TUX601	A-3220-961-A	TUNER UNIT (TUX-032)	
#1	7-685-792-09	SCREW +PTT 2.6X6 (S)	
#2	7-685-793-09	SCREW +PTT 2.6X8 (S)	

4-2. FRONT PANEL SECTION



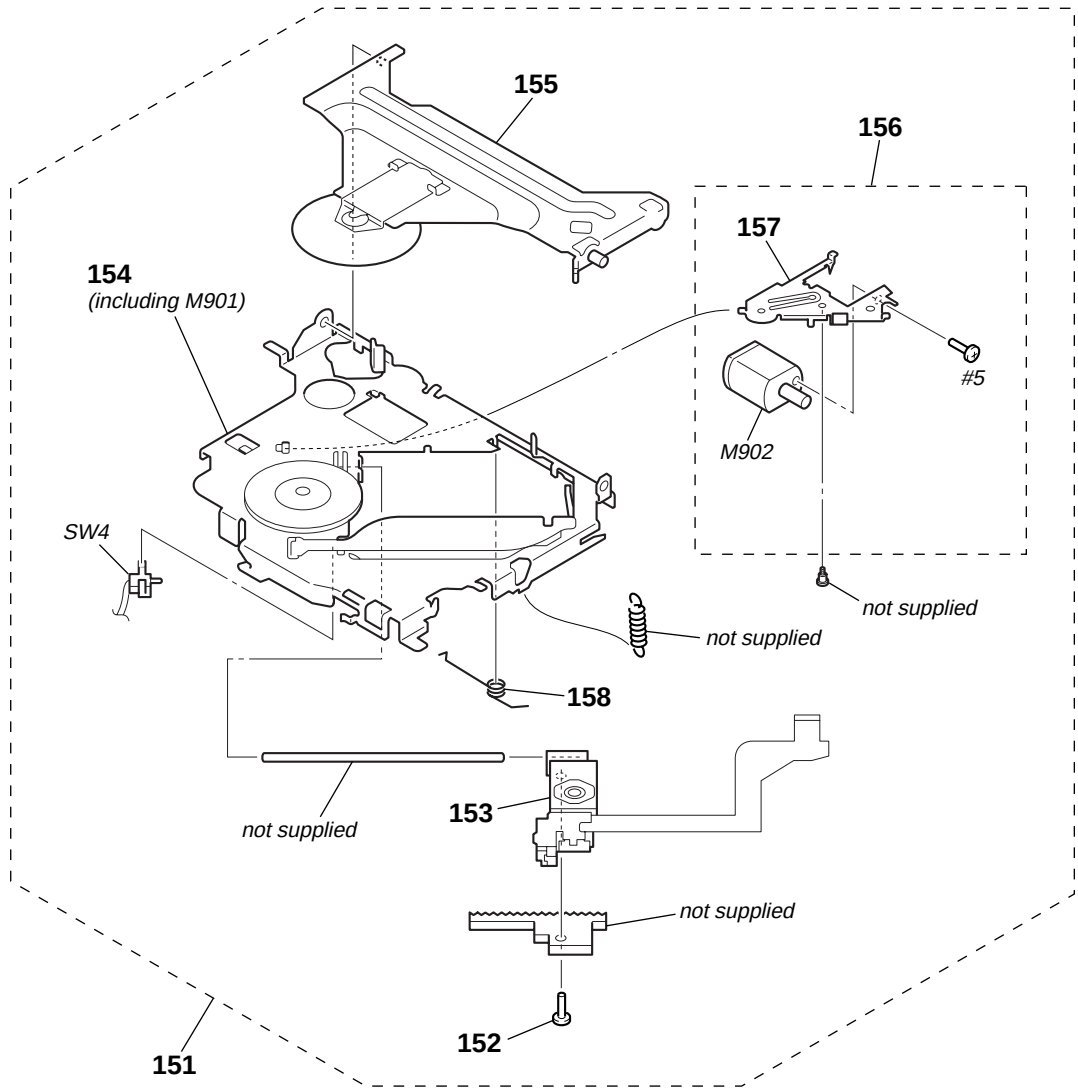
Ref. No.	Part No.	Description	Remark
51	X-2024-954-1	KIT (SVX) ASSY, BUTTON	
52	X-2048-711-1	KNOB VOL (SVX) ASSY	
53	X-2048-710-1	PANEL ASSY (SVX), FRONT	
54	1-780-097-11	CONDUCTIVE BOARD, CONNECTION	
55	X-3384-501-2	PLATE SUB ASSY (N), LIGHT GUIDE	
56	X-2048-712-1	PANEL ASSY (SVX), FRONT BACK	
57	X-3378-390-3	CASE (PANEL) ASSY (for FRONT PANEL)	
58	A-1101-263-A	OVERALL ASSY	
LCD901	1-805-767-11	DISPLAY PANEL, LIQUID CRYSTAL	
#3	2-584-729-01	SCREW +P 2X10 TYPE2 NON-SLIT	

4-3. CD MECHANISM SECTION (1)
(MG-611TA-186//K)



Ref. No.	Part No.	Description	Remark
101	A-3372-455-A	CHASSIS (T) SUB ASSY	
102	3-253-729-01	SPRING (LTR), TENSION COIL	
103	3-253-746-14	SPRING (DAMPER), COMPRESSION	
104	3-253-746-03	SPRING (DAMPER), COMPRESSION	
105	2-345-767-01	SPRING (KF60), TENSION	
106	3-253-748-01	DAMPER (S)	
107	3-352-758-31	SCREW (M1.7X2.5), TOOTHED LOCK	
108	A-1075-784-A	SERVO BOARD, COMPLETE	
#4	7-627-552-87	SCREW, PRECISION +P 1.7X2.2	

4-4. CD MECHANISM SECTION (2)
(MG-611TA-186//K)

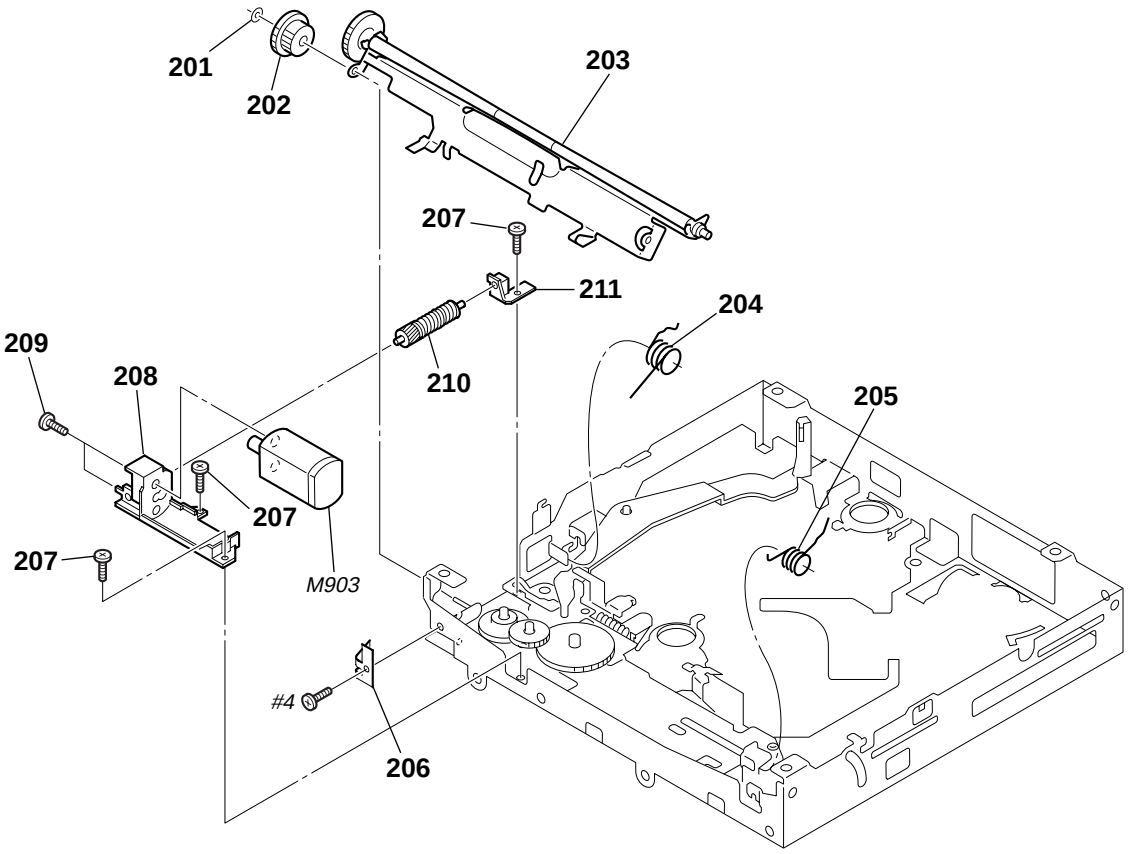


The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une piéce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remark
151	A-1075-786-A	CHASSIS (OP) COMPLETE ASSY	
152	3-316-938-91	SCREW (B1.4X5), TAPPING	
⚠153	8-820-207-12	OPTICAL PICK-UP (KSS1000E/K1RP)	
154	A-1075-787-A	CHASSIS (OP) SUB ASSY (including M901)	
155	A-3337-641-A	ARM SUB ASSY, CHUCKING	
156	A-3337-639-A	LEVER (SL) SUB ASSY	

Ref. No.	Part No.	Description	Remark
157	X-3383-454-3	LEVER (SL) ASSY	
158	3-261-959-02	SPRING (SL), TORSION	
M902	A-3337-638-A	MOTOR ASSY, SL (SLED)	
SW4	1-571-099-11	SWITCH (1 KEY) (LIMIT)	
#5	7-627-850-77	SCREW, PRECISION +P 1.4X1.8	

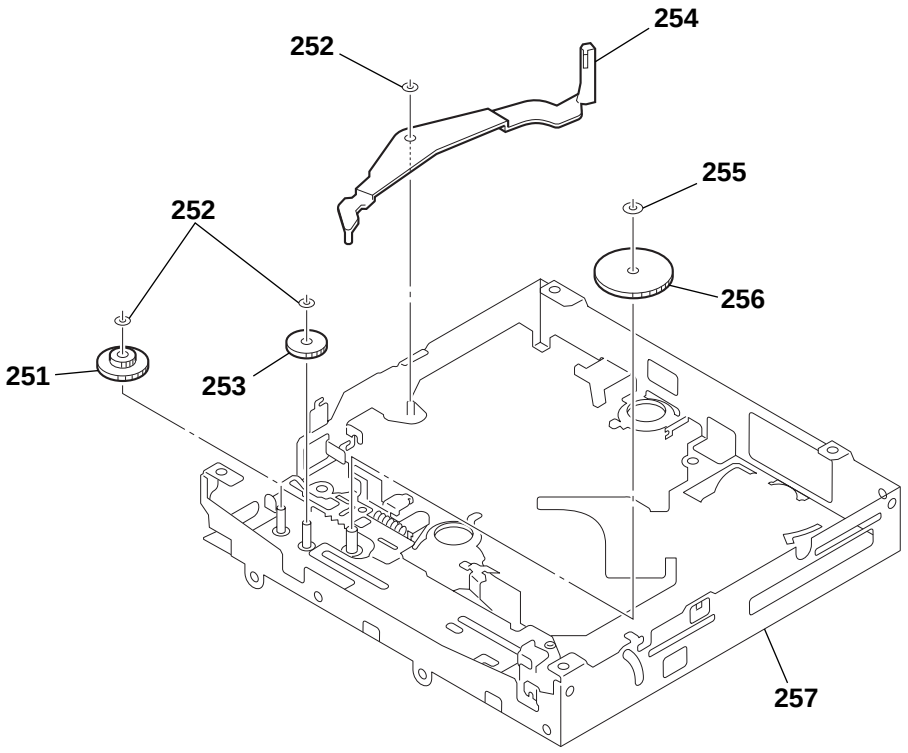
4-5. CD MECHANISM SECTION (3)
(MG-611TA-186//K)



Ref. No.	Part No.	Description	Remark
201	3-262-755-01	WASHER (1.1-2.5)	
202	2-186-699-11	GEAR (RA1)	
203	A-1075-789-A	ARM ASSY, ROLLER	
204	3-259-455-02	SPRING (RAL)	
205	3-253-713-01	SPRING (RAR)	
206	3-259-469-01	SPRING (LE), LEAF	
207	2-134-636-31	SCREW (M1.7X2.5)	

Ref. No.	Part No.	Description	Remark
208	2-186-696-11	BRACKET (LEM-N)	
209	3-345-648-91	SCREW (M1.4), TOOTHED LOCK	
210	A-1083-637-A	GEAR (LE) ASSY	
211	2-186-697-11	BEARING (LEB-N)	
M903	A-1075-792-A	MOTOR ASSY, LE (LOADING)	
#4	7-627-552-87	SCREW, PRECISION +P 1.7X2.2	

4-6. CD MECHANISM SECTION (4)
(MG-611TA-186//K)



Ref. No.	Part No.	Description	Remark
251	2-186-700-11	GEAR (CHK1)	
252	3-344-223-01	WASHER	
253	3-259-470-01	GEAR (LE1)	
254	3-253-755-02	LEVER (D)	

Ref. No.	Part No.	Description	Remark
255	3-899-829-01	WASHER (SLIT)	
256	3-259-032-01	GEAR (LE2)	
257	A-1075-791-A	CHASSIS (M) BLOCK ASSY	

DISPLAY

SECTION 5
ELECTRICAL PARTS LIST

NOTE:
- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL:Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F:nonflammable
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u : µ, for example:
  uA.. : µA.. uPA.. : µPA..
  uPB.. : µPB.. uPC.. : µPC.. uPD.. : µPD..
- CAPACITORS
  uF : µF
- COILS
  uH : µH

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une piéce portant le numéro spécifié.

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description			Remark
		DISPLAY BOARD			
		**********			
	1-780-097-11	CONDUCTIVE BOARD, CONNECTION			
		< CAPACITOR >			
C951	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C952	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
C954	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C955	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C956	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C957	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
		< CONNECTOR >			
CN901	1-817-158-11	PLUG, CONNECTER 14P			
		< DIODE >			
D902	8-719-978-33	DIODE DTZ-TT11-6.8B			
D903	8-719-978-33	DIODE DTZ-TT11-6.8B			
D904	8-719-978-33	DIODE DTZ-TT11-6.8B			
D905	8-719-988-61	DIODE 1SS355TE-17			
D906	8-719-978-33	DIODE DTZ-TT11-6.8B			
D951	8-719-977-03	DIODE DTZ5.6B			
D952	8-719-069-54	DIODE UDZSTE-175.1B			
		< IC >			
IC901	6-707-064-01	IC LC75876WH-US-E			
IC951	6-600-384-01	IC KSM-401E (IR)			
		< LIQUID CRYSTAL DISPLAY >			
LCD901	1-805-767-11	DISPLAY PANEL, LIQUID CRYSTAL			
		< DIODE >			
LED902	6-501-062-01	LED NSCW505CT-AST (LCD BACK LIGHT)			
LED905	6-501-062-01	LED NSCW505CT-AST (LCD BACK LIGHT)			
LED907	8-719-053-09	LED SML-310VTT86 (DSO)			
LED908	8-719-053-09	LED SML-310VTT86 (SOURCE)			
LED910	8-719-053-09	LED SML-310VTT86 (LIST CAT)			
LED911	8-719-053-09	LED SML-310VTT86 (4)			
LED912	8-719-053-09	LED SML-310VTT86 (5)			
LED913	8-719-053-09	LED SML-310VTT86 (6)			
LED914	8-719-053-09	LED SML-310VTT86 (OFF)			
LED915	8-719-053-09	LED SML-310VTT86 (BTM)			
LED916	8-719-053-09	LED SML-310VTT86 (1)			
LED917	8-719-053-09	LED SML-310VTT86 (2)			
LED918	8-719-053-09	LED SML-310VTT86 (3)			
LED920	1-216-864-11	SHORT CHIP 0			
LED921	8-719-053-09	LED SML-310VTT86 (DSPL)			
LED922	8-719-053-09	LED SML-310VTT86 (SENS)			
LED923	8-719-053-09	LED SML-310VTT86 (MODE)			
LED927	8-719-053-09	LED SML-310VTT86 (EQ3)			
		< TRANSISTOR >			
Q501	8-729-901-81	TRANSISTOR 2SC2412K-T-146-R			
		< RESISTOR >			
R901	1-216-819-11	METAL CHIP	680	5%	1/10W
R902	1-216-819-11	METAL CHIP	680	5%	1/10W
R903	1-216-819-11	METAL CHIP	680	5%	1/10W
R904	1-216-821-11	METAL CHIP	1K	5%	1/10W
R905	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R906	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R907	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R908	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R909	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R910	1-218-867-11	METAL CHIP	6.8K	0.5%	1/10W
R911	1-216-819-11	METAL CHIP	680	5%	1/10W
R912	1-216-819-11	METAL CHIP	680	5%	1/10W
R913	1-216-819-11	METAL CHIP	680	5%	1/10W
R914	1-216-821-11	METAL CHIP	1K	5%	1/10W
R915	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R916	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R917	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R918	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R919	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R924	1-216-809-11	METAL CHIP	100	5%	1/10W
R925	1-216-809-11	METAL CHIP	100	5%	1/10W
R940	1-216-833-11	METAL CHIP	10K	5%	1/10W
R941	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R947	1-216-815-11	METAL CHIP	330	5%	1/10W
R951	1-216-815-11	METAL CHIP	330	5%	1/10W
R952	1-216-815-11	METAL CHIP	330	5%	1/10W
R953	1-216-821-11	METAL CHIP	1K	5%	1/10W
R954	1-216-821-11	METAL CHIP	1K	5%	1/10W
R955	1-216-821-11	METAL CHIP	1K	5%	1/10W
R956	1-216-821-11	METAL CHIP	1K	5%	1/10W
R961	1-216-857-11	METAL CHIP	1M	5%	1/10W

Ref. No.	Part No.	Description			Remark
R962	1-216-817-11	METAL CHIP	470	5%	1/10W
R971	1-216-813-11	METAL CHIP	220	5%	1/10W
R972	1-216-813-11	METAL CHIP	220	5%	1/10W
R973	1-216-813-11	METAL CHIP	220	5%	1/10W
R974	1-216-813-11	METAL CHIP	220	5%	1/10W
R975	1-216-813-11	METAL CHIP	220	5%	1/10W
R976	1-216-813-11	METAL CHIP	220	5%	1/10W
R977	1-216-813-11	METAL CHIP	220	5%	1/10W
R978	1-216-813-11	METAL CHIP	220	5%	1/10W
R981	1-216-814-11	METAL CHIP	270	5%	1/10W
R982	1-216-814-11	METAL CHIP	270	5%	1/10W
R983	1-216-813-11	METAL CHIP	220	5%	1/10W
R984	1-216-813-11	METAL CHIP	220	5%	1/10W
R985	1-216-813-11	METAL CHIP	220	5%	1/10W
R986	1-216-813-11	METAL CHIP	220	5%	1/10W
R989	1-216-813-11	METAL CHIP	220	5%	1/10W
R990	1-216-813-11	METAL CHIP	220	5%	1/10W
		< ROTARY ENCODER >			
RE901	1-478-474-11	ENCODER, ROTARY (PUSH DIAL SELECT/VOLUME)			
		< SWITCH >			
S901	1-786-763-11	SWITCH, TACTILE (OFF)			
S902	1-786-763-11	SWITCH, TACTILE (GP/PRESET +)			
S903	1-786-763-11	SWITCH, TACTILE (LIST CAT)			
S904	1-786-763-11	SWITCH, TACTILE (DSO)			
S905	1-786-763-11	SWITCH, TACTILE (EQ3)			
S906	1-786-763-11	SWITCH, TACTILE (I◀◀ SEEK – ◀◀)			
S907	1-786-763-11	SWITCH, TACTILE (DSPL)			
S908	1-786-763-11	SWITCH, TACTILE (GP/PRESET –)			
S909	1-786-763-11	SWITCH, TACTILE (▶▶I SEEK + ▶▶)			
S910	1-786-763-11	SWITCH, TACTILE (6)			
S911	1-786-763-11	SWITCH, TACTILE (5/BBE MP)			
S912	1-786-763-11	SWITCH, TACTILE (4/SHUF)			
S913	1-786-763-11	SWITCH, TACTILE (3/REP)			
S914	1-786-763-11	SWITCH, TACTILE (2)			
S915	1-786-763-11	SWITCH, TACTILE (1)			
S916	1-786-763-11	SWITCH, TACTILE (BTM)			
S917	1-786-763-11	SWITCH, TACTILE (SENS)			
S918	1-786-763-11	SWITCH, TACTILE (MODE)			
S919	1-786-763-11	SWITCH, TACTILE (SOURCE)			
**********					
	A-1101-261-A	MAIN BOARD, COMPLETE (including SPEAKER BOARD)			
		**********			
	7-621-284-40	SCREW +P 2.6X10			
	7-685-134-19	SCREW +P 2.6X8 TYPE2 NON-SLIT			
	7-685-793-09	SCREW +PTT 2.6X8 (S)			
	7-685-795-09	SCREW +PTT 2.6X12 (S)			
		< CAPACITOR >			
C101	1-126-964-11	ELECT	10uF	20%	50V
C106	1-126-965-11	ELECT	22uF	20%	50V
C107	1-126-964-11	ELECT	10uF	20%	50V
C109	1-104-665-11	ELECT	100uF	20%	25V
C111	1-126-964-11	ELECT	10uF	20%	50V

Ref. No.	Part No.	Description			Remark
C113	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C303	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C403	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C404	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C406	1-136-153-00	FILM	0.012uF	5%	50V
C407	1-162-965-11	CERAMIC CHIP	0.0015uF	10%	50V
C408	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V
C409	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V
C410	1-126-960-11	ELECT	1uF	20%	50V
C411	1-126-960-11	ELECT	1uF	20%	50V
C412	1-126-960-11	ELECT	1uF	20%	50V
C413	1-126-960-11	ELECT	1uF	20%	50V
C414	1-126-964-11	ELECT	10uF	20%	50V
C415	1-136-153-00	FILM	0.012uF	5%	50V
C416	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C417	1-126-947-11	ELECT	47uF	20%	35V
C418	1-162-965-11	CERAMIC CHIP	0.0015uF	10%	50V
C420	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C421	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C422	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C423	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C424	1-126-964-11	ELECT	10uF	20%	50V
C425	1-126-964-11	ELECT	10uF	20%	50V
C426	1-126-964-11	ELECT	10uF	20%	50V
C428	1-126-964-11	ELECT	10uF	20%	50V
C430	1-126-947-11	ELECT	47uF	20%	35V
C433	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C434	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C435	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C436	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C437	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C438	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C439	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C440	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C441	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V
C443	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C444	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C446	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C447	1-126-961-11	ELECT	2.2uF	20%	50V
C450	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C451	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C452	1-126-964-11	ELECT	10uF	20%	50V
C453	1-126-964-11	ELECT	10uF	20%	50V
C454	1-126-960-11	ELECT	1uF	20%	50V
C604	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C612	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C613	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C614	1-115-156-11	CERAMIC CHIP	1uF		10V
C615	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C616	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C617	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C618	1-126-947-11	ELECT	47uF	20%	35V
C619	1-126-964-11	ELECT	10uF	20%	50V
C620	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C701	1-104-665-11	ELECT	100uF	20%	25V
C704	1-104-665-11	ELECT	100uF	20%	25V
C706	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C707	1-104-665-11	ELECT	100uF	20%	25V

MAIN

Ref. No.	Part No.	Description			Remark
C709	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C801	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C802	1-126-947-11	ELECT	47uF	20%	35V
C807	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C809	1-104-665-11	ELECT	100uF	20%	25V
C810	1-126-916-11	ELECT	1000uF	20%	6.3V
C812	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C813	1-104-665-11	ELECT	100uF	20%	25V
C814	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C815	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C816	1-162-917-11	CERAMIC CHIP	15PF	5%	50V
C817	1-162-917-11	CERAMIC CHIP	15PF	5%	50V
C818	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C821	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C822	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C825	1-104-665-11	ELECT	100uF	20%	25V
C906	1-126-963-11	ELECT	4.7uF	20%	50V
C908	1-126-960-11	ELECT	1uF	20%	50V
C909	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C920	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C921	1-126-940-11	ELECT	330uF	20%	25V
C922	1-131-868-81	ELECT	3300uF	20%	16V
C990	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C991	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C992	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C993	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C994	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
		< CONNECTOR >			
CN751	1-817-536-11	CONNECTOR, BOARD TO BOARD 28P			
CNJ900	1-580-907-41	PLUG, CONNECTOR (BUS CONTROL IN)			
CNP802	1-569-907-11	SOCKET, CONNECTOR 12P			
CNP901	1-774-701-21	PIN, CONNECTOR 16P			
		< JACK >			
CNP900	1-764-270-21	JACK (REMOTE IN)			
		< DIODE >			
D301	8-719-978-33	DIODE	DTZ-TT11-6.8B		
D400	8-719-080-34	DIODE	SDS511		
D600	8-719-069-55	DIODE	UDZSTE-175.6B		
D701	8-719-080-34	DIODE	SDS511		
D702	8-719-080-34	DIODE	SDS511		
D801	8-719-080-34	DIODE	SDS511		
D803	8-719-977-12	DIODE	DTZ6.8B		
D804	8-719-058-24	DIODE	RB501V-40TE-17		
D805	8-719-058-24	DIODE	RB501V-40TE-17		
D806	8-719-058-24	DIODE	RB501V-40TE-17		
D808	8-719-977-12	DIODE	DTZ6.8B		
D810	8-719-080-34	DIODE	SDS511		
D811	8-719-109-97	DIODE	RD6.8ESB2		
D812	8-719-109-97	DIODE	RD6.8ESB2		
D813	8-719-109-97	DIODE	RD6.8ESB2		
D814	8-719-109-97	DIODE	RD6.8ESB2		
D815	8-719-109-97	DIODE	RD6.8ESB2		
D816	8-719-109-97	DIODE	RD6.8ESB2		
D817	8-719-109-97	DIODE	RD6.8ESB2		
D818	8-719-060-48	DIODE	RB751V-40TE-17		

Ref. No.	Part No.	Description	Remark
D821	8-719-109-97	DIODE RD6.8ESB2	
D822	8-719-109-97	DIODE RD6.8ESB2	
D824	8-719-083-66	DIODE UDZSTE-1718B	
D825	8-719-083-66	DIODE UDZSTE-1718B	
D857	8-719-058-24	DIODE RB501V-40TE-17	
D858	8-719-058-24	DIODE RB501V-40TE-17	
D901	8-719-083-66	DIODE UDZSTE-1718B	
D902	8-719-053-18	DIODE 1SR154-400TE-25	
D903	8-719-053-18	DIODE 1SR154-400TE-25	
D904	6-500-522-01	DIODE 10EDB40-TA1B2	
D905	6-500-522-01	DIODE 10EDB40-TA1B2	
D906	6-500-522-01	DIODE 10EDB40-TA1B2	
D907	6-500-522-01	DIODE 10EDB40-TA1B2	
D908	6-500-522-01	DIODE 10EDB40-TA1B2	
D909	6-500-522-01	DIODE 10EDB40-TA1B2	
D910	8-719-058-24	DIODE RB501V-40TE-17	
D911	8-719-017-95	DIODE MA8180-TX	
D912	8-719-083-66	DIODE UDZSTE-1718B	
D913	8-719-017-95	DIODE MA8180-TX	
D914	8-719-977-12	DIODE DTZ6.8B	
D915	8-719-069-56	DIODE UDZSTE-176.2B	
D916	6-500-522-01	DIODE 10EDB40-TA1B2	
D917	6-500-522-01	DIODE 10EDB40-TA1B2	
D918	8-719-080-34	DIODE SDS511	
D919	8-719-049-38	DIODE 1N5404TU	
D921	6-500-522-01	DIODE 10EDB40-TA1B2	
D922	6-500-522-01	DIODE 10EDB40-TA1B2	
		< FERRITE BEAD >	
FB701	1-414-760-21	FERRITE, EMI (SMD) (1608)	
FB703	1-414-760-21	FERRITE, EMI (SMD) (1608)	
		< IC >	
IC100	6-705-359-02	IC TDA8588AJ/N2/R1	
IC401	6-707-303-01	IC TDA7419TR	
IC801	6-805-004-01	IC MB90487APF-G-125-BNDE1	
IC802	8-759-659-13	IC PST3428UL	
IC803	6-705-373-01	IC MM3123DPLE	
IC900	6-703-884-01	IC BA8271F-E2	
		< JUMPER RESISTOR >	
JR5	1-216-864-11	SHORT CHIP 0	
JR6	1-216-864-11	SHORT CHIP 0	
JR10	1-414-227-11	INDUCTOR, FERRITE BEAD	
		< COIL >	
L400	1-414-398-11	INDUCTOR 10uH	
L700	1-410-509-11	INDUCTOR 10uH	
L701	1-410-501-11	INDUCTOR 2.2uH	
L703	1-216-296-11	SHORT CHIP 0	
L900	1-456-617-11	COIL, CHOKE	
		< JACK >	
PJ401	1-774-700-11	JACK, PIN 6P (BUS AUDIO IN/AUX IN, AUDIO OUT REAR/FRONT)	
PJ601	1-793-598-11	JACK (ANTENNA)	

Ref. No.	Part No.	Description			Remark
		< TRANSISTOR >			
Q301	6-550-683-01	FET RJK005N03-T146			
Q400	8-729-038-71	TRANSISTOR KRC107S			
Q401	8-729-038-55	TRANSISTOR KRA103S			
Q402	6-551-070-01	TRANSISTOR KRC283S-B-RPK/P			
Q403	6-551-070-01	TRANSISTOR KRC283S-B-RPK/P			
Q404	6-551-070-01	TRANSISTOR KRC283S-B-RPK/P			
Q405	6-551-070-01	TRANSISTOR KRC283S-B-RPK/P			
Q406	6-551-070-01	TRANSISTOR KRC283S-B-RPK/P			
Q407	6-551-070-01	TRANSISTOR KRC283S-B-RPK/P			
Q601	8-729-920-85	TRANSISTOR 2SD1664-QR			
Q800	8-729-038-55	TRANSISTOR KRA103S			
Q801	8-729-038-71	TRANSISTOR KRC107S			
Q802	8-729-038-55	TRANSISTOR KRA103S			
Q900	8-729-034-51	TRANSISTOR KTC3875			
Q901	8-729-034-51	TRANSISTOR KTC3875			
Q902	8-729-038-67	TRANSISTOR KRC102S			
Q903	8-729-055-96	TRANSISTOR SRC1203SF			
Q904	8-729-055-92	TRANSISTOR SRA2203SF			
Q905	8-729-055-92	TRANSISTOR SRA2203SF			
Q912	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
		< RESISTOR >			
R101	1-216-841-11	METAL CHIP	47K	5%	1/10W
R302	1-216-809-11	METAL CHIP	100	5%	1/10W
R400	1-216-821-11	METAL CHIP	1K	5%	1/10W
R401	1-216-821-11	METAL CHIP	1K	5%	1/10W
R402	1-216-833-11	METAL CHIP	10K	5%	1/10W
R403	1-216-833-11	METAL CHIP	10K	5%	1/10W
R404	1-216-809-11	METAL CHIP	100	5%	1/10W
R405	1-216-809-11	METAL CHIP	100	5%	1/10W
R406	1-216-809-11	METAL CHIP	100	5%	1/10W
R407	1-216-809-11	METAL CHIP	100	5%	1/10W
R408	1-216-833-11	METAL CHIP	10K	5%	1/10W
R409	1-216-864-11	SHORT CHIP	0		
R411	1-216-809-11	METAL CHIP	100	5%	1/10W
R412	1-216-809-11	METAL CHIP	100	5%	1/10W
R413	1-216-833-11	METAL CHIP	10K	5%	1/10W
R414	1-216-809-11	METAL CHIP	100	5%	1/10W
R415	1-216-809-11	METAL CHIP	100	5%	1/10W
R416	1-216-809-11	METAL CHIP	100	5%	1/10W
R417	1-216-809-11	METAL CHIP	100	5%	1/10W
R418	1-216-841-11	METAL CHIP	47K	5%	1/10W
R419	1-216-841-11	METAL CHIP	47K	5%	1/10W
R420	1-216-841-11	METAL CHIP	47K	5%	1/10W
R421	1-216-841-11	METAL CHIP	47K	5%	1/10W
R424	1-216-805-11	METAL CHIP	47	5%	1/10W
R425	1-216-833-11	METAL CHIP	10K	5%	1/10W
R426	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R427	1-216-809-11	METAL CHIP	100	5%	1/10W
R428	1-216-833-11	METAL CHIP	10K	5%	1/10W
R429	1-247-807-31	CARBON	100	5%	1/4W
R430	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R431	1-247-807-31	CARBON	100	5%	1/4W
R432	1-216-809-11	METAL CHIP	100	5%	1/10W
R435	1-216-809-11	METAL CHIP	100	5%	1/10W
R436	1-216-809-11	METAL CHIP	100	5%	1/10W
R437	1-216-821-11	METAL CHIP	1K	5%	1/10W

Ref. No.	Part No.	Description			Remark
R440	1-216-809-11	METAL CHIP	100	5%	1/10W
R441	1-216-809-11	METAL CHIP	100	5%	1/10W
R442	1-216-841-11	METAL CHIP	47K	5%	1/10W
R443	1-216-841-11	METAL CHIP	47K	5%	1/10W
R447	1-216-811-11	METAL CHIP	150	5%	1/10W
R448	1-216-841-11	METAL CHIP	47K	5%	1/10W
R468	1-216-864-11	SHORT CHIP	0		
R603	1-247-807-31	CARBON	100	5%	1/4W
R604	1-247-807-31	CARBON	100	5%	1/4W
R606	1-216-809-11	METAL CHIP	100	5%	1/10W
R607	1-216-809-11	METAL CHIP	100	5%	1/10W
R608	1-216-809-11	METAL CHIP	100	5%	1/10W
R614	1-469-144-21	FERRITE, EMI (SMD) (2012)			
R615	1-216-821-11	METAL CHIP	1K	5%	1/10W
R705	1-216-809-11	METAL CHIP	100	5%	1/10W
R708	1-216-864-11	SHORT CHIP	0		
R722	1-216-809-11	METAL CHIP	100	5%	1/10W
R800	1-216-841-11	METAL CHIP	47K	5%	1/10W
R801	1-216-809-11	METAL CHIP	100	5%	1/10W
R804	1-216-809-11	METAL CHIP	100	5%	1/10W
R805	1-218-871-11	METAL CHIP	10K	0.5%	1/10W
R806	1-218-871-11	METAL CHIP	10K	0.5%	1/10W
R808	1-216-845-11	METAL CHIP	100K	5%	1/10W
R809	1-216-845-11	METAL CHIP	100K	5%	1/10W
R813	1-216-845-11	METAL CHIP	100K	5%	1/10W
R814	1-216-845-11	METAL CHIP	100K	5%	1/10W
R815	1-249-435-11	CARBON	33K	5%	1/4W
R816	1-216-821-11	METAL CHIP	1K	5%	1/10W
R817	1-216-821-11	METAL CHIP	1K	5%	1/10W
R818	1-216-809-11	METAL CHIP	100	5%	1/10W
R819	1-216-809-11	METAL CHIP	100	5%	1/10W
R821	1-216-817-11	METAL CHIP	470	5%	1/10W
R822	1-216-817-11	METAL CHIP	470	5%	1/10W
R823	1-216-817-11	METAL CHIP	470	5%	1/10W
R825	1-216-849-11	METAL CHIP	220K	5%	1/10W
R826	1-216-843-11	METAL CHIP	68K	5%	1/10W
R827	1-216-809-11	METAL CHIP	100	5%	1/10W
R828	1-216-809-11	METAL CHIP	100	5%	1/10W
R830	1-216-809-11	METAL CHIP	100	5%	1/10W
R832	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R833	1-249-417-11	CARBON	1K	5%	1/4W
R834	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R844	1-216-845-11	METAL CHIP	100K	5%	1/10W
R846	1-216-845-11	METAL CHIP	100K	5%	1/10W
R848	1-216-845-11	METAL CHIP	100K	5%	1/10W
R849	1-216-841-11	METAL CHIP	47K	5%	1/10W
R850	1-218-871-11	METAL CHIP	10K	0.5%	1/10W
R851	1-216-845-11	METAL CHIP	100K	5%	1/10W
R852	1-216-864-11	SHORT CHIP	0		
R853	1-216-864-11	SHORT CHIP	0		
R855	1-216-821-11	METAL CHIP	1K	5%	1/10W
R856	1-216-841-11	METAL CHIP	47K	5%	1/10W
R857	1-216-809-11	METAL CHIP	100	5%	1/10W
R858	1-216-809-11	METAL CHIP	100	5%	1/10W
R859	1-216-809-11	METAL CHIP	100	5%	1/10W
R860	1-216-845-11	METAL CHIP	100K	5%	1/10W
R861	1-216-809-11	METAL CHIP	100	5%	1/10W
R862	1-216-809-11	METAL CHIP	100	5%	1/10W

MAIN **RELAY** **SENSOR** **SERVO**

Ref. No.	Part No.	Description			Remark
R863	1-216-845-11	METAL CHIP	100K	5%	1/10W
R864	1-216-833-11	METAL CHIP	10K	5%	1/10W
R865	1-216-833-11	METAL CHIP	10K	5%	1/10W
R866	1-216-845-11	METAL CHIP	100K	5%	1/10W
R870	1-249-407-11	CARBON	150	5%	1/4W
R871	1-249-407-11	CARBON	150	5%	1/4W
R872	1-216-029-00	RES-CHIP	150	5%	1/10W
R873	1-216-845-11	METAL CHIP	100K	5%	1/10W
R900	1-216-849-11	METAL CHIP	220K	5%	1/10W
R901	1-216-845-11	METAL CHIP	100K	5%	1/10W
R902	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R903	1-216-841-11	METAL CHIP	47K	5%	1/10W
R904	1-216-841-11	METAL CHIP	47K	5%	1/10W
R905	1-216-833-11	METAL CHIP	10K	5%	1/10W
R907	1-216-833-11	METAL CHIP	10K	5%	1/10W
R908	1-216-809-11	METAL CHIP	100	5%	1/10W
R909	1-216-809-11	METAL CHIP	100	5%	1/10W
R910	1-216-809-11	METAL CHIP	100	5%	1/10W
R911	1-216-864-11	SHORT CHIP	0		
R912	1-249-417-11	CARBON	1K	5%	1/4W
R913	1-216-821-11	METAL CHIP	1K	5%	1/10W
R914	1-469-144-21	FERRITE, EMI (SMD) (2012)			
R915	1-469-144-21	FERRITE, EMI (SMD) (2012)			
R917	1-249-431-11	CARBON	15K	5%	1/4W
R919	1-216-809-11	METAL CHIP	100	5%	1/10W
R920	1-216-821-11	METAL CHIP	1K	5%	1/10W
R921	1-216-809-11	METAL CHIP	100	5%	1/10W
R925	1-216-845-11	METAL CHIP	100K	5%	1/10W
R926	1-216-849-11	METAL CHIP	220K	5%	1/10W
R927	1-216-833-11	METAL CHIP	10K	5%	1/10W
R929	1-216-821-11	METAL CHIP	1K	5%	1/10W
R930	1-216-821-11	METAL CHIP	1K	5%	1/10W
R931	1-216-073-00	RES-CHIP	10K	5%	1/10W
R932	1-216-073-00	RES-CHIP	10K	5%	1/10W
R935	1-216-841-11	METAL CHIP	47K	5%	1/10W
R936	1-216-864-11	SHORT CHIP	0		
R938	1-216-073-00	RES-CHIP	10K	5%	1/10W
R939	1-216-073-00	RES-CHIP	10K	5%	1/10W
R940	1-216-845-11	METAL CHIP	100K	5%	1/10W
R941	1-216-837-11	METAL CHIP	22K	5%	1/10W
		< SWITCH >			
S800	1-571-850-51	SWITCH, SLIDE (FREQUENCY SELECT)			
S801	1-786-458-11	SWITCH, PUSH (1 KEY) (NOSE DET)			
S802	1-762-638-21	SWITCH, TACTILE (RESET)			
		< THERMISTOR (POSITIVE) >			
TH900	1-801-792-21	THERMISTOR, POSITIVE			
		< TUNER >			
TUX601	A-3220-961-A	TUNER UNIT (TUX-032)			
		< VIBRATOR >			
X800	1-813-524-21	VIBRATOR, CERAMIC (18.432MHz)			
X801	1-813-202-11	VIBRATOR, CRYSTAL (32.768kHz)			

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Ref. No.	Part No.	Description			Remark
		RELAY BOARD			
		**********			
	1-792-173-11	CABLE, FLAT (FFC) 12P (CNP903)			
		< CAPACITOR >			
C974	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C975	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
		< CONNECTOR >			
CNP902	1-817-159-11	SOCKET, CONNECTOR 14P			
		< DIODE >			
LED930	8-719-082-38	LED CL-270SR-C-TS (DISC IN)			
LED935	8-719-053-09	LED SML-310VTT86 (⏏)			
		< RESISTOR >			
R966	1-216-817-11	METAL CHIP	470	5%	1/10W
		< SWITCH >			
S931	1-786-763-11	SWITCH, TACTILE (⏏)			

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		SENSOR BOARD			
		**********			
		< SWITCH >			
SW2	1-529-566-61	SWITCH, PUSH (1 KEY) (SELF)			
SW3	1-529-566-61	SWITCH, PUSH (1 KEY) (DISC IN)			

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	A-1075-784-A	SERVO BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C4	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C5	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C6	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C7	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C9	1-104-609-11	ELECT CHIP	100uF	20%	4V
C10	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C13	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C16	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C17	1-162-925-11	CERAMIC CHIP	68PF	5%	50V
C18	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C19	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C20	1-164-245-11	CERAMIC CHIP	0.015uF	10%	25V
C21	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C22	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C23	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C24	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C27	1-164-677-11	CERAMIC CHIP	0.033uF	10%	16V
C28	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C29	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C31	1-164-245-11	CERAMIC CHIP	0.015uF	10%	25V
C32	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C33	1-164-677-11	CERAMIC CHIP	0.033uF	10%	16V
C34	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V

Ref. No.	Part No.	Description			Remark
C35	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C36	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C37	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C38	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C39	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C40	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C41	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C42	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C43	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C45	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C47	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C48	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C49	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C51	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C52	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C53	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C57	1-115-416-11	CERAMIC CHIP	0.001uF	5%	25V
C58	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C59	1-112-195-11	ELECT	47uF	20%	4V
C60	1-112-195-11	ELECT	47uF	20%	4V
C61	1-126-208-21	ELECT CHIP	47uF	20%	4V
C62	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C64	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C65	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C67	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V
C72	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V
C80	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V
C101	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C102	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C103	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C105	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C106	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
		< CONNECTOR >			
CN1	1-815-016-21	CONNECTOR, FFC/FPC (ZIF) 16P			
CN2	1-817-275-21	CONNECTOR, BOARD TO BOARD 28P			
		< JUMPER RESISTOR >			
FB2	1-216-864-11	SHORT CHIP	0		
FB3	1-216-864-11	SHORT CHIP	0		
FB4	1-216-864-11	SHORT CHIP	0		
		< IC >			
IC1	6-707-327-01	IC BA5968FP-E2			
IC2	6-707-328-01	IC TC94A60MFG-301			
IC3	6-805-086-02	IC MB90487APFV-G-142-BNDE1			
IC6	6-705-364-01	IC R1114N151D-TR-FA			
		< TRANSISTOR >			
Q1	8-729-904-87	TRANSISTOR 2SB1197K-R			
Q2	8-729-904-87	TRANSISTOR 2SB1197K-R			
Q3	8-729-928-90	TRANSISTOR DTC114EE			
		< RESISTOR >			
R1	1-218-941-81	RES-CHIP	100	5%	1/16W
R2	1-208-699-11	METAL CHIP	4.7K	0.5%	1/16W
R3	1-208-912-11	METAL CHIP	11K	0.5%	1/16W
R4	1-218-969-11	RES-CHIP	22K	5%	1/16W
R5	1-218-969-11	RES-CHIP	22K	5%	1/16W
R6	1-218-929-11	RES-CHIP	10	5%	1/16W
R7	1-218-929-11	RES-CHIP	10	5%	1/16W
R8	1-218-967-11	RES-CHIP	15K	5%	1/16W
R9	1-218-967-11	RES-CHIP	15K	5%	1/16W
R10	1-218-965-11	RES-CHIP	10K	5%	1/16W
R11	1-218-965-11	RES-CHIP	10K	5%	1/16W
R12	1-218-977-11	RES-CHIP	100K	5%	1/16W
R13	1-218-969-11	RES-CHIP	22K	5%	1/16W
R16	1-218-967-11	RES-CHIP	15K	5%	1/16W
R17	1-218-973-11	RES-CHIP	47K	5%	1/16W
R19	1-218-967-11	RES-CHIP	15K	5%	1/16W
R21	1-218-973-11	RES-CHIP	47K	5%	1/16W
R22	1-218-990-11	SHORT CHIP	0		
R23	1-218-979-11	RES-CHIP	150K	5%	1/16W
R24	1-218-962-11	RES-CHIP	5.6K	5%	1/16W
R25	1-218-990-11	SHORT CHIP	0		
R26	1-218-941-81	RES-CHIP	100	5%	1/16W
R28	1-218-947-11	RES-CHIP	330	5%	1/16W
R40	1-218-941-81	RES-CHIP	100	5%	1/16W
R41	1-218-977-11	RES-CHIP	100K	5%	1/16W
R42	1-218-977-11	RES-CHIP	100K	5%	1/16W
R43	1-218-941-81	RES-CHIP	100	5%	1/16W
R44	1-218-941-81	RES-CHIP	100	5%	1/16W
R45	1-218-989-11	RES-CHIP	1M	5%	1/16W
R46	1-218-947-11	RES-CHIP	330	5%	1/16W
R47	1-218-977-11	RES-CHIP	100K	5%	1/16W
R48	1-218-941-81	RES-CHIP	100	5%	1/16W
R49	1-218-941-81	RES-CHIP	100	5%	1/16W
R50	1-218-941-81	RES-CHIP	100	5%	1/16W
R51	1-218-941-81	RES-CHIP	100	5%	1/16W
R52	1-218-945-11	RES-CHIP	220	5%	1/16W
R53	1-218-941-81	RES-CHIP	100	5%	1/16W
R54	1-218-941-81	RES-CHIP	100	5%	1/16W
R55	1-218-977-11	RES-CHIP	100K	5%	1/16W
R56	1-218-941-81	RES-CHIP	100	5%	1/16W
R57	1-218-941-81	RES-CHIP	100	5%	1/16W
R58	1-218-941-81	RES-CHIP	100	5%	1/16W
R59	1-218-977-11	RES-CHIP	100K	5%	1/16W
R60	1-218-977-11	RES-CHIP	100K	5%	1/16W
R61	1-218-977-11	RES-CHIP	100K	5%	1/16W
R62	1-218-977-11	RES-CHIP	100K	5%	1/16W
R63	1-218-977-11	RES-CHIP	100K	5%	1/16W
R64	1-218-977-11	RES-CHIP	100K	5%	1/16W
R65	1-218-941-81	RES-CHIP	100	5%	1/16W
R66	1-218-941-81	RES-CHIP	100	5%	1/16W
R67	1-218-941-81	RES-CHIP	100	5%	1/16W
R68	1-218-941-81	RES-CHIP	100	5%	1/16W
R69	1-218-941-81	RES-CHIP	100	5%	1/16W
R70	1-218-941-81	RES-CHIP	100	5%	1/16W
R71	1-220-804-11	RES-CHIP	2.2M	5%	1/16W
R72	1-218-941-81	RES-CHIP	100	5%	1/16W
R73	1-218-973-11	RES-CHIP	47K	5%	1/16W
R74	1-218-941-81	RES-CHIP	100	5%	1/16W
R77	1-218-941-81	RES-CHIP	100	5%	1/16W
R78	1-218-941-81	RES-CHIP	100	5%	1/16W
R80	1-218-941-81	RES-CHIP	100	5%	1/16W
R81	1-218-973-11	RES-CHIP	47K	5%	1/16W

SERVO

Ref. No.	Part No.	Description			Remark
R82	1-218-973-11	RES-CHIP	47K	5%	1/16W
R83	1-218-973-11	RES-CHIP	47K	5%	1/16W
R84	1-218-953-11	RES-CHIP	1K	5%	1/16W
R86	1-218-969-11	RES-CHIP	22K	5%	1/16W
R90	1-218-941-81	RES-CHIP	100	5%	1/16W
R91	1-218-941-81	RES-CHIP	100	5%	1/16W
R100	1-220-200-81	RES-CHIP	30K	5%	1/16W
R101	1-218-971-11	RES-CHIP	33K	5%	1/16W
R112	1-218-990-11	SHORT CHIP	0		
R113	1-218-990-11	SHORT CHIP	0		
R116	1-218-977-11	RES-CHIP	100K	5%	1/16W
R117	1-218-977-11	RES-CHIP	100K	5%	1/16W
R118	1-218-977-11	RES-CHIP	100K	5%	1/16W
R119	1-218-977-11	RES-CHIP	100K	5%	1/16W
R120	1-218-990-11	SHORT CHIP	0		
R121	1-218-990-11	SHORT CHIP	0		
R122	1-218-990-11	SHORT CHIP	0		
R123	1-218-990-11	SHORT CHIP	0		
R125	1-218-941-81	RES-CHIP	100	5%	1/16W
R126	1-218-941-81	RES-CHIP	100	5%	1/16W
R127	1-218-941-81	RES-CHIP	100	5%	1/16W
R128	1-218-941-81	RES-CHIP	100	5%	1/16W
R131	1-216-864-11	SHORT CHIP	0		
R132	1-218-962-11	RES-CHIP	5.6K	5%	1/16W
		< SWITCH >			
SW1	1-529-565-61	SWITCH, PUSH (1 KEY) (DOWN)			
		< VIBRATOR >			
X1	1-813-371-21	VIBRATOR, CERAMIC (12MHz)			
X2	1-795-561-21	VIBRATOR, CERAMIC (16.9344MHz)			

****

MISCELLANEOUS
****

11	1-776-207-72	CORD (WITH CONNECTOR) (POWER)	
⚠153	8-820-207-12	OPTICAL PICK-UP (KSS1000E/K1RP)	
154	A-1075-787-A	CHASSIS (OP) SUB ASSY (including M901)	
F900	1-532-877-11	FUSE (BLADE TYPE) (AUTO FUSE) 10A	
M902	A-3337-638-A	MOTOR ASSY, SL (SLED)	
M903	A-1075-792-A	MOTOR ASSY, LE (LOADING)	
SW4	1-571-099-11	SWITCH (1 KEY) (LIMIT)	

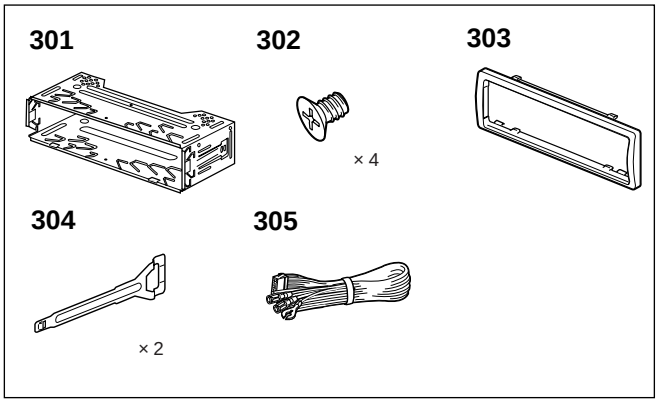
****

ACCESSORIES
****

	2-515-314-11	MANUAL, INSTRUCTION (ENGLISH,FRENCH)
	2-515-317-11	MANUAL, INSTRUCTION, INSTALL (ENGLISH, FRENCH)

****

Ref. No.	Part No.	Description	Remark
		PARTS FOR INSTALLATION AND CONNECTIONS	
		**********	
301	X-3382-647-1	FRAME ASSY, FITTING	
302	3-934-325-01	SCREW (+K 5X8 TP)	
303	3-260-658-11	COLLAR	
304	3-246-471-01	KEY (FRAME)	
305	1-776-207-72	CORD (WITH CONNECTOR) (POWER)	



The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une piéce portant le numéro spécifié.

CDX-F50M

SONY

SERVICE MANUAL

US Model
Canadian Model
AEP Model
UK Model

Ver. 1.2 2005. 10

SUPPLEMENT-1

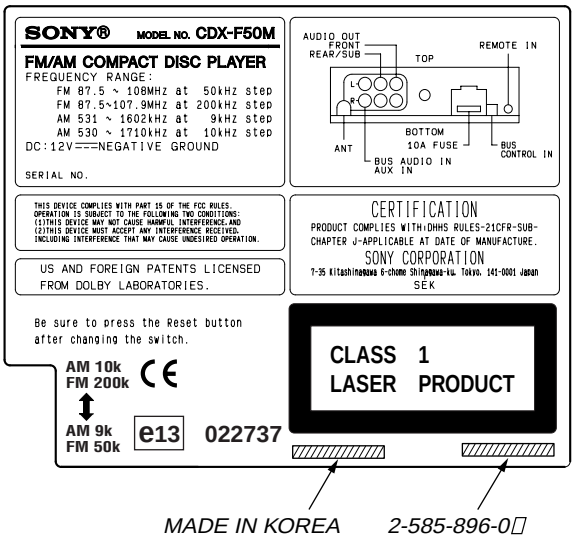
File this supplement with the service manual.

Subject : Production country change.

The CDX-F50M model has been changed in the production country to Thailand from Korean.
This service manual, SUPPLEMENT-1 only contains the change.
When servicing and inspecting, check the Model Number Label to see if the model is made in Thailand or Korean.

DISCRIMINATION

Korea production model



Thailand production model

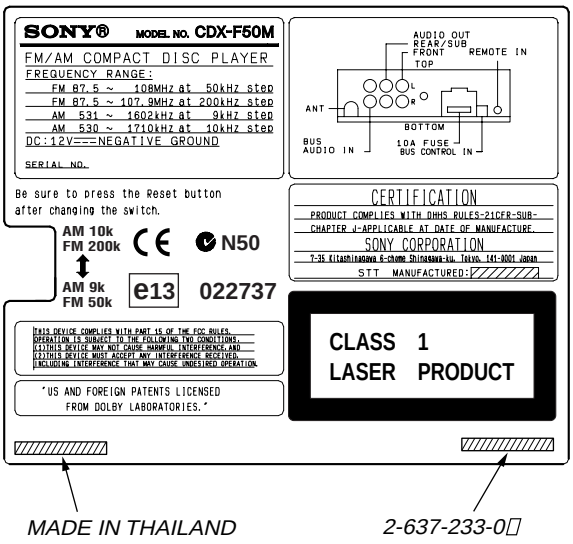


TABLE OF CONTENTS

1. DIAGRAMS

1-1. Printed Wiring Boards –CD Mechanism Section– 4
1-2. Schematic Diagram –CD Mechanism Section (1/2)– 5
1-3. Schematic Diagram –CD Mechanism Section (2/2)– 6
1-4. Schematic Diagram –Main Section (1/3)– 7
1-5. Schematic Diagram –Main Section (2/3)– 8
1-6. Schematic Diagram –Main Section (3/3)– 9
1-7. Printed Wiring Boards –Main Section– 10
1-8. Printed Wiring Board –Relay Section– 11
1-9. Schematic Diagram –Relay Section– 11

2. EXPLODED VIEWS

2-1. Main Section 13
2-2. CD Mechanism Section (1) 14
2-3. CD Mechanism Section (2) 15
2-4. CD Mechanism Section (3) 16
2-5. CD Mechanism Section (4) 17

3. ELECTRICAL PARTS LIST 18

SECTION 1
DIAGRAMS

• NOTE FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

THIS NOTE IS COMMON FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS.
(In addition to this, the necessary note is printed in each block.)

For schematic diagrams.

Note:
- All capacitors are in µF unless otherwise noted. (p: pF) 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- △ : internal component.
- ▭ : panel designation.

Note:	**Note:**
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une piéce portant le numéro spécifié.

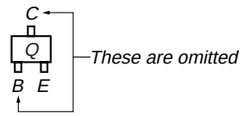
- ▬▬ : B+ Line.
- ▬ ▬ : B– Line.
- ▭ : adjustment for repair.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
- CD mechanism section (1/2), (2/2)
  no mark : CD PLAY
- Main section (1/3), (2/3), (3/3)
  no mark : FM
  ( ) : AM
  < > : CD PLAY
  * : Impossible to measure
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  : CD PLAY
  : FM
  : AM
  : BUS AUDIO

For printed wiring boards.

Note:
- o——— : parts extracted from the component side.
- ——— : parts extracted from the conductor side.
- ○ : Through hole.
- ▬ : Pattern from the side which enables seeing.

(The other layers' patterns are not indicated.)

Caution:	
Pattern face side: (Side B)	Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Side A)	Parts on the parts face side seen from the parts face are indicated.



These are omitted

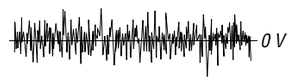
These are omitted

These are omitted

• WAVEFORMS

— SERVO BOARD — (CD PLAY)

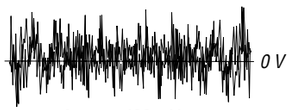
① IC2 ④ (FEI)



Approx. 100 mVp-p

50 mV/DIV, 5 msec/DIV

② IC2 ⑥ (TEI)



Approx. 400 mVp-p

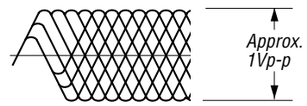
200 mV/DIV, 5 msec/DIV

③ IC2 ㉓ (XI)

16.9344 MHz

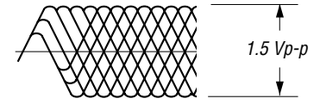
0.2 V/DIV, 0.2 µsec/DIV

④ IC2 ㊼ (RFI)



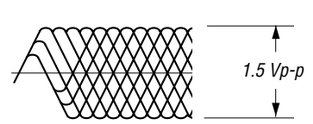
0.5 V/DIV, 0.5 µsec/DIV

⑤ IC2 ㊹ (FNI2), ㊺ (FNI1)



0.5 V/DIV, 0.5 µsec/DIV

⑥ IC2 ㊻ (FPI2), ㊼ (FPI1)



0.5 V/DIV, 0.5 µsec/DIV

⑦ IC3 ㉛ (X1)

12 MHz

0.5 V/DIV, 0.2 µsec/DIV

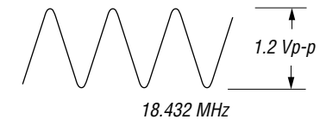
— MAIN BOARD —

① IC801 ㊽ (XOA)

32.768 kHz

0.2 V/DIV, 20 µsec/DIV

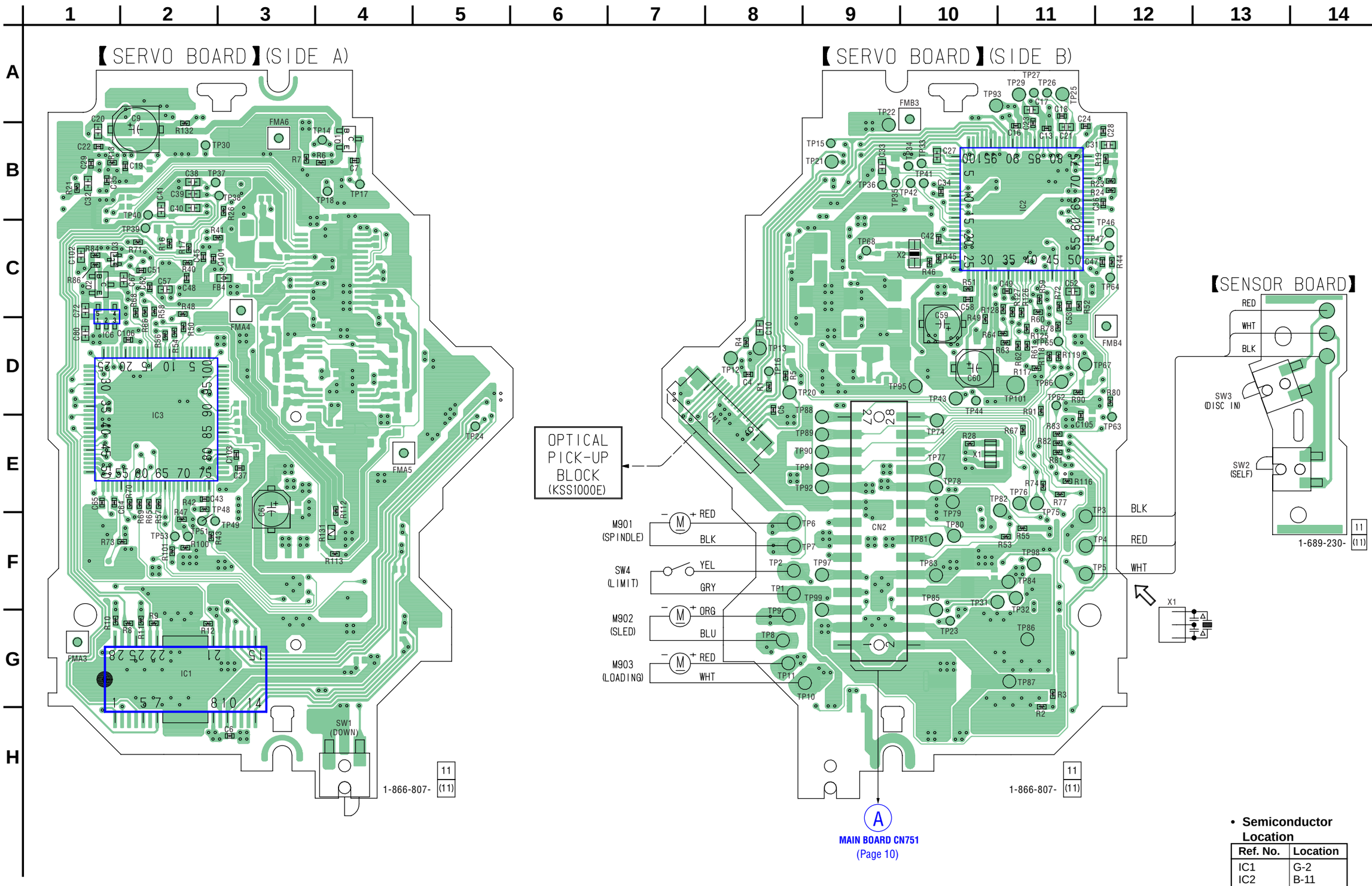
② IC801 ㊸ (X1)



18.432 MHz

0.5 V/DIV, 0.1 µsec/DIV

1-1. PRINTED WIRING BOARDS — CD MECHANISM SECTION — : Uses unleaded solder.

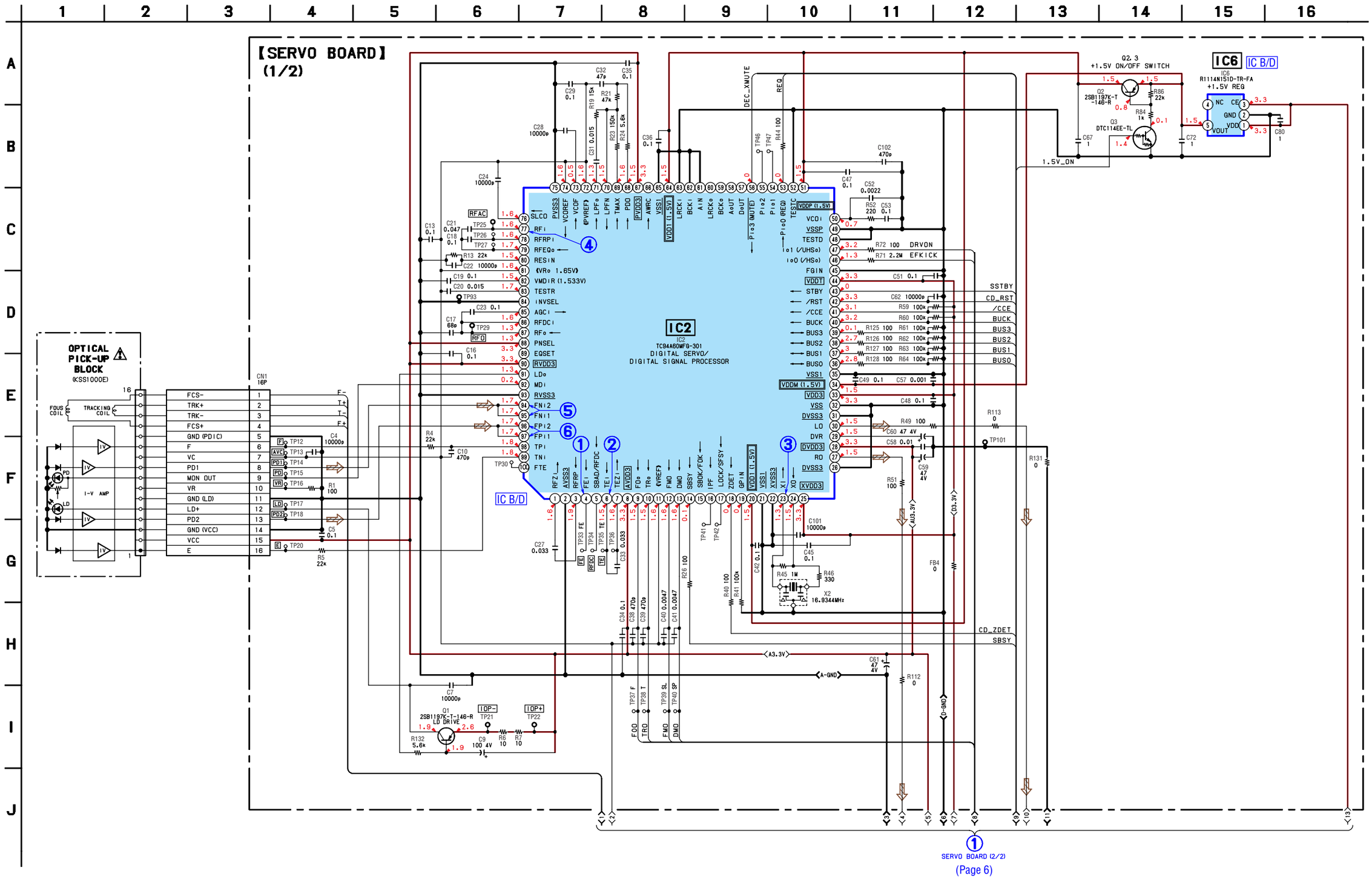


- **Semiconductor Location**

Ref. No.	Location
IC1	G-2
IC2	B-11
IC3	D-2
IC6	D-1
Q1	B-4
Q2	C-1
Q3	C-1

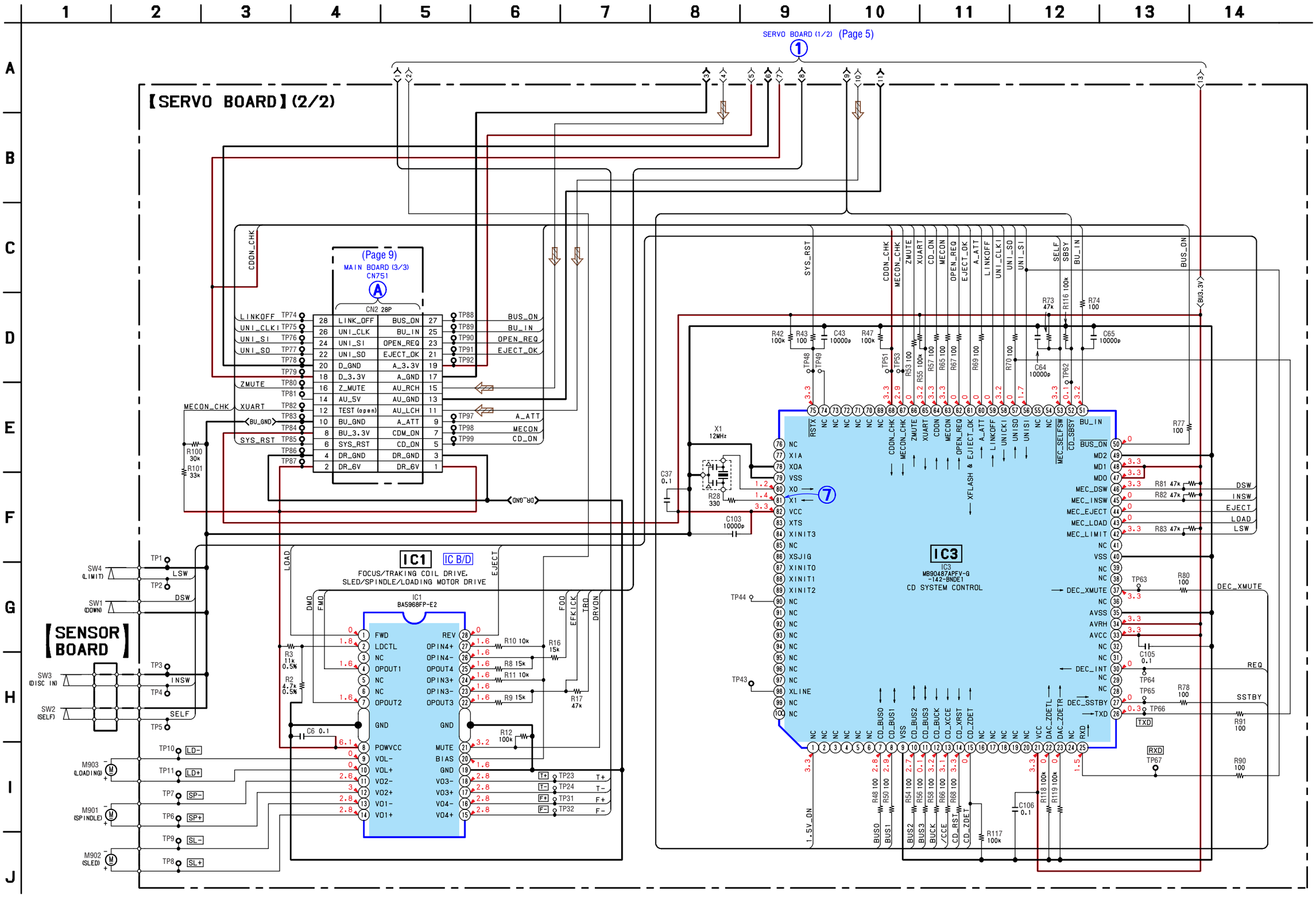
1-2. SCHEMATIC DIAGRAM — CD MECHANISM SECTION (1/2) —

• Refer to page 3 for Waveforms.
• Refer to page 12 for IC Block Diagrams.

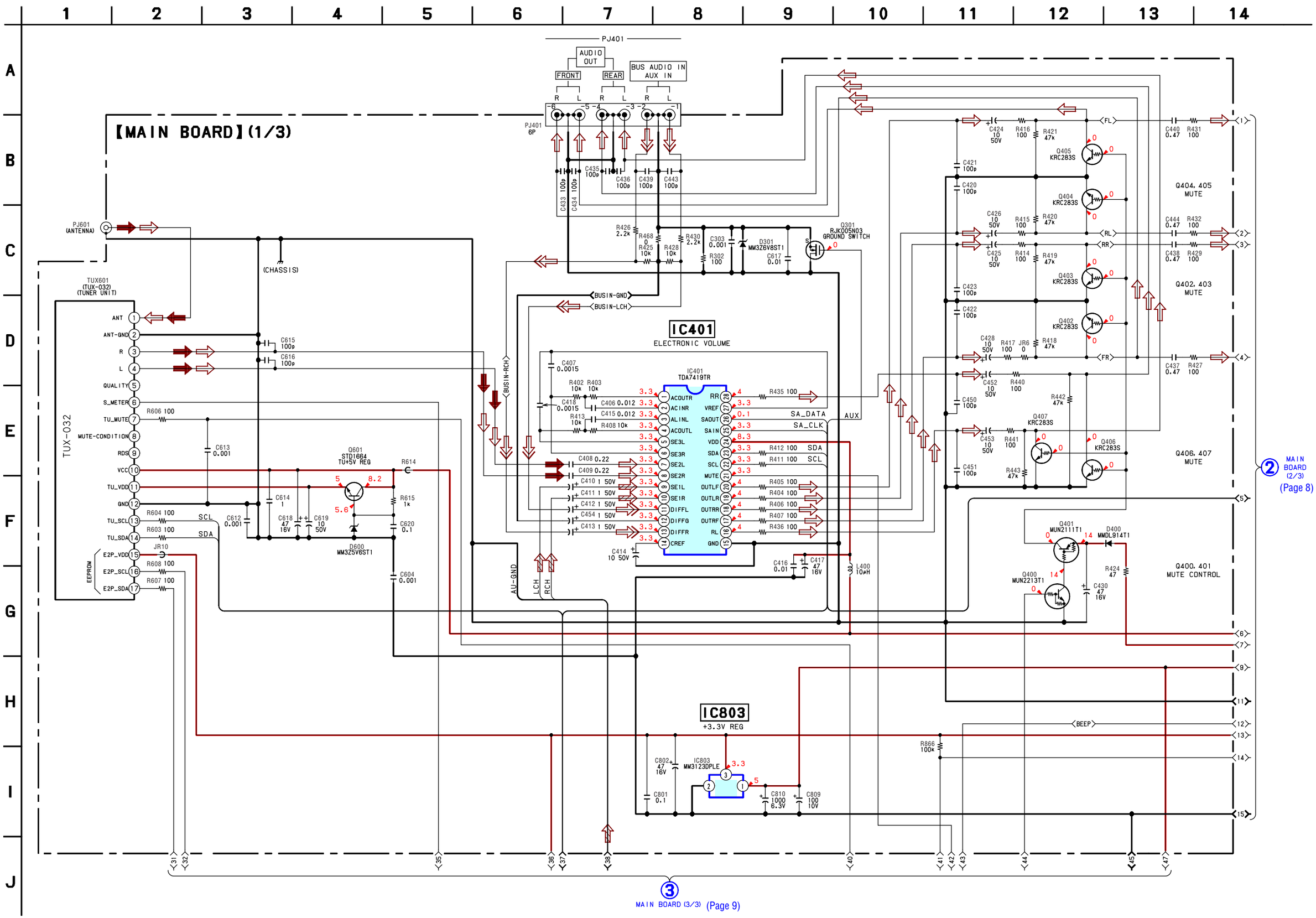


1-3. SCHEMATIC DIAGRAM — CD MECHANISM SECTION (2/2) —

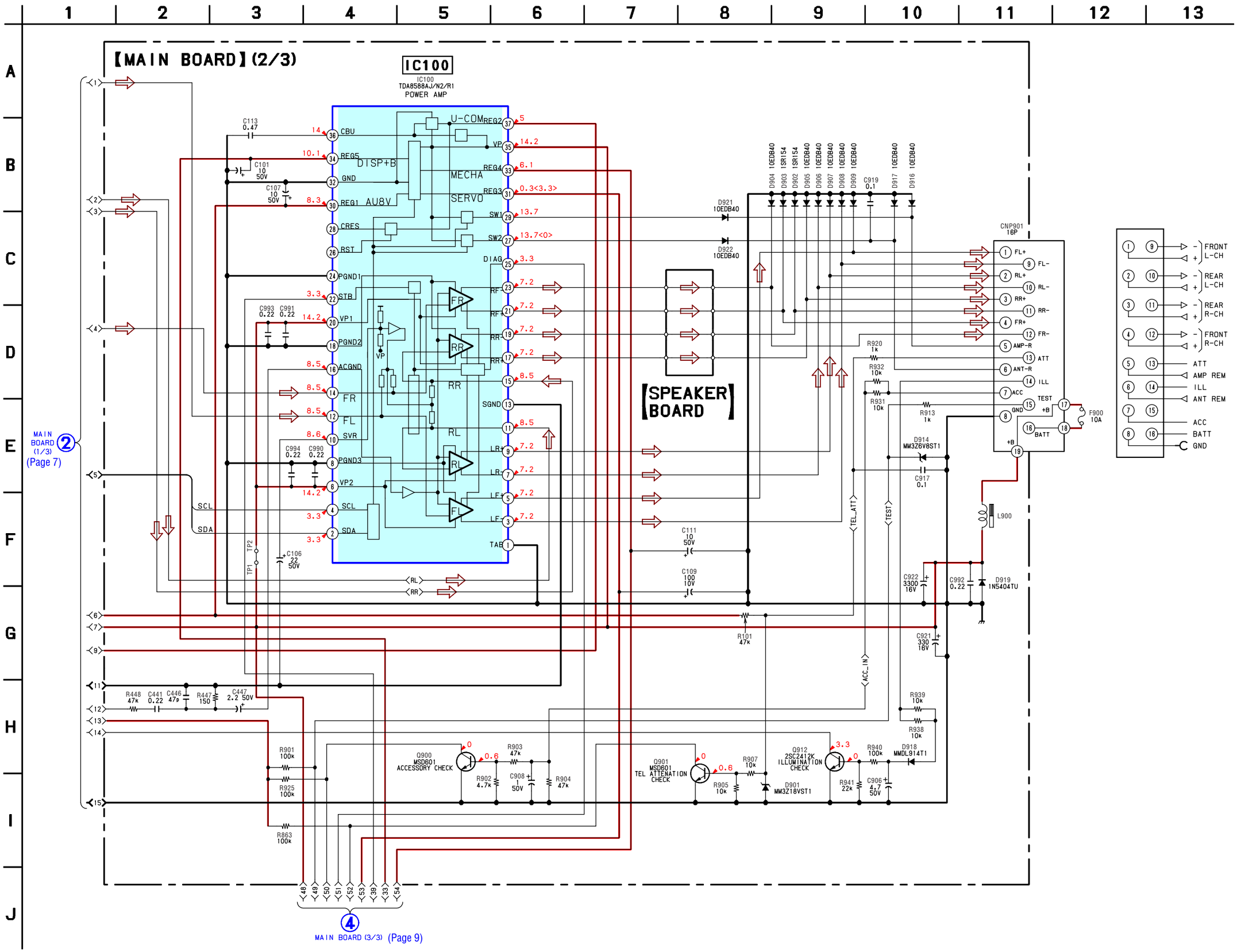
• Refer to page 3 for Waveform.
• Refer to page 12 for IC Block Diagram.



1-4. SCHEMATIC DIAGRAM — MAIN SECTION (1/3) —

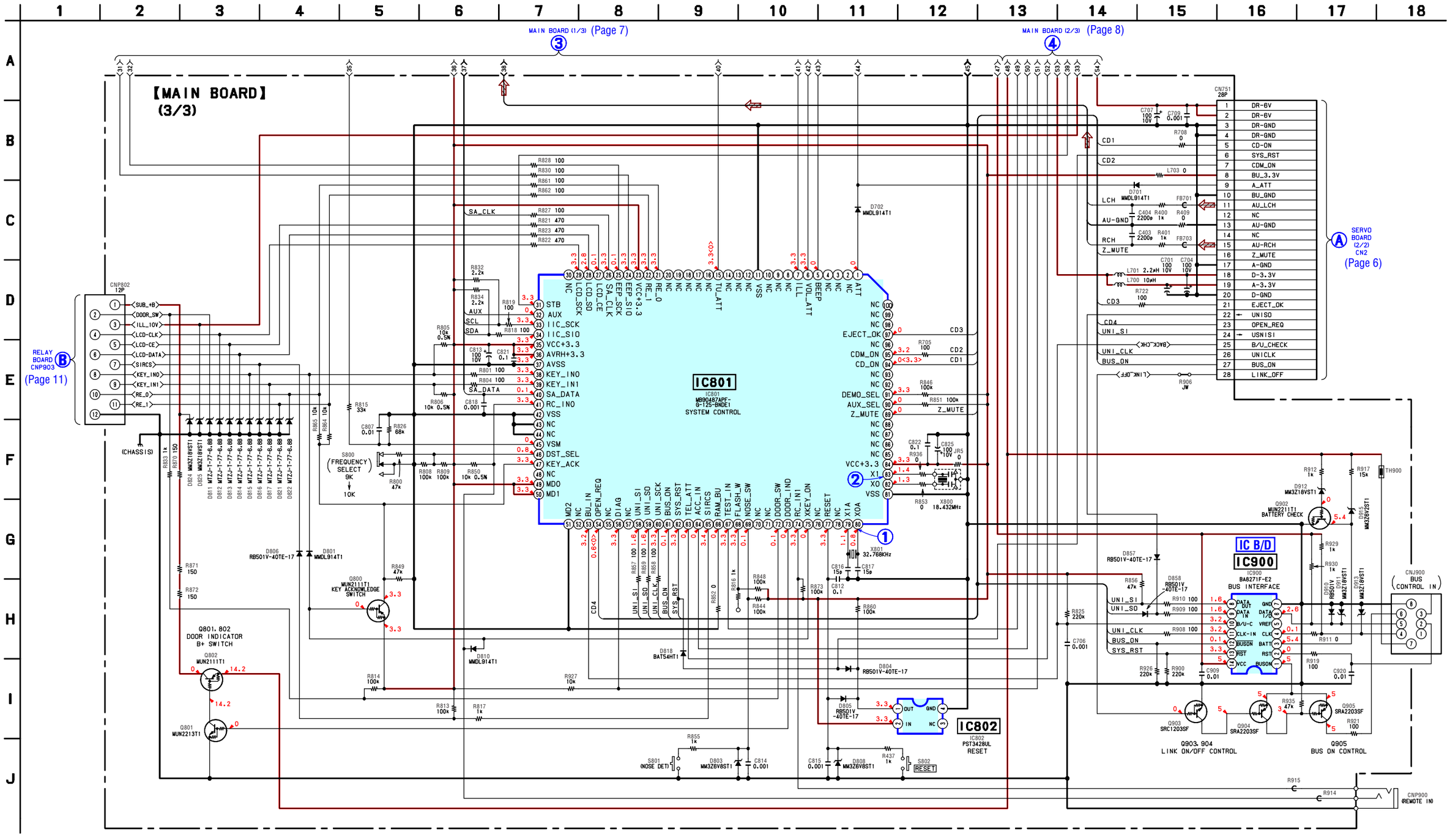


1-5. SCHEMATIC DIAGRAM — MAIN SECTION (2/3) —

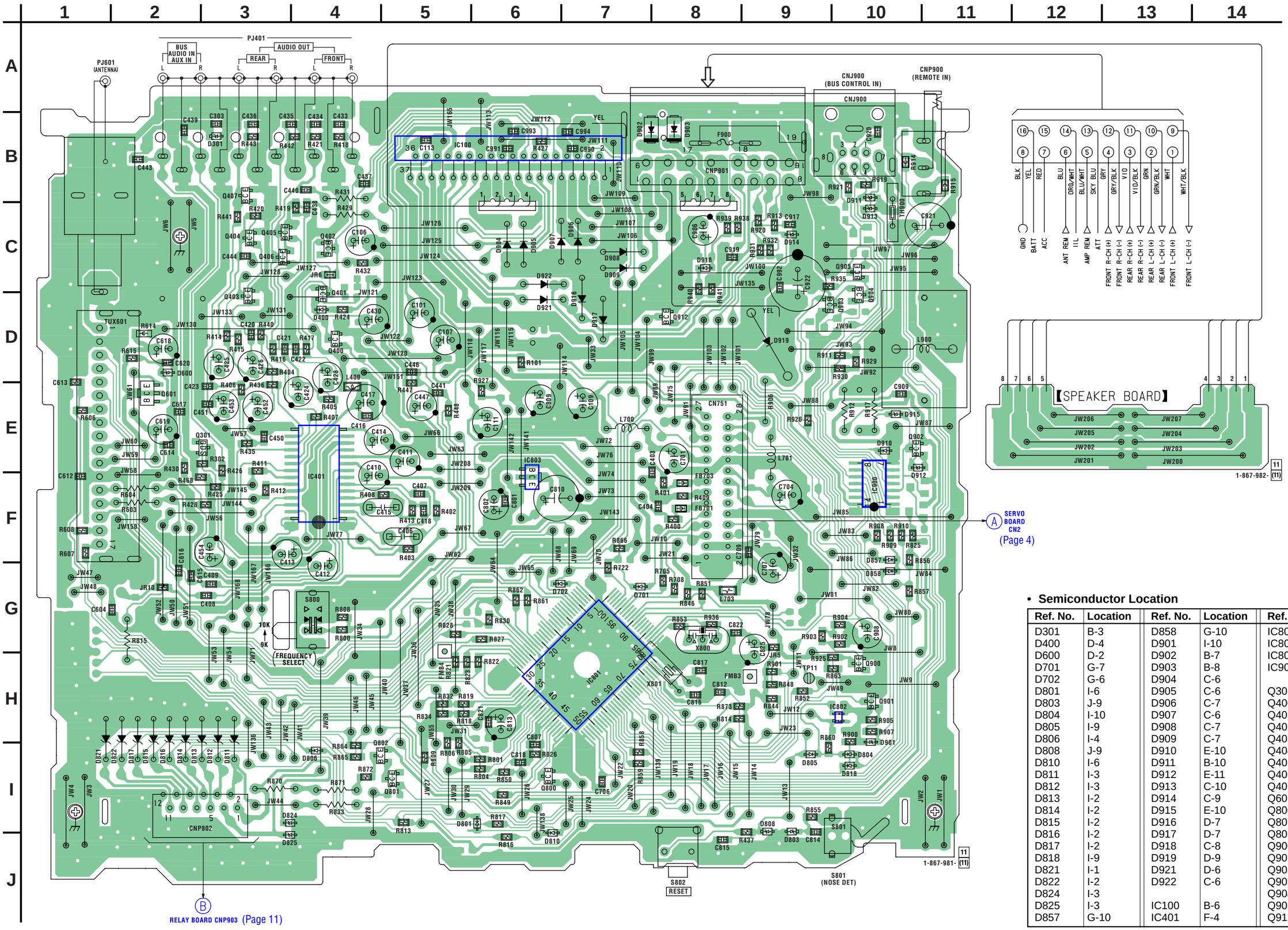


1-6. SCHEMATIC DIAGRAM — MAIN SECTION (3/3) —

- Refer to page 3 for Waveforms.
- Refer to page 12 for IC Block Diagram.



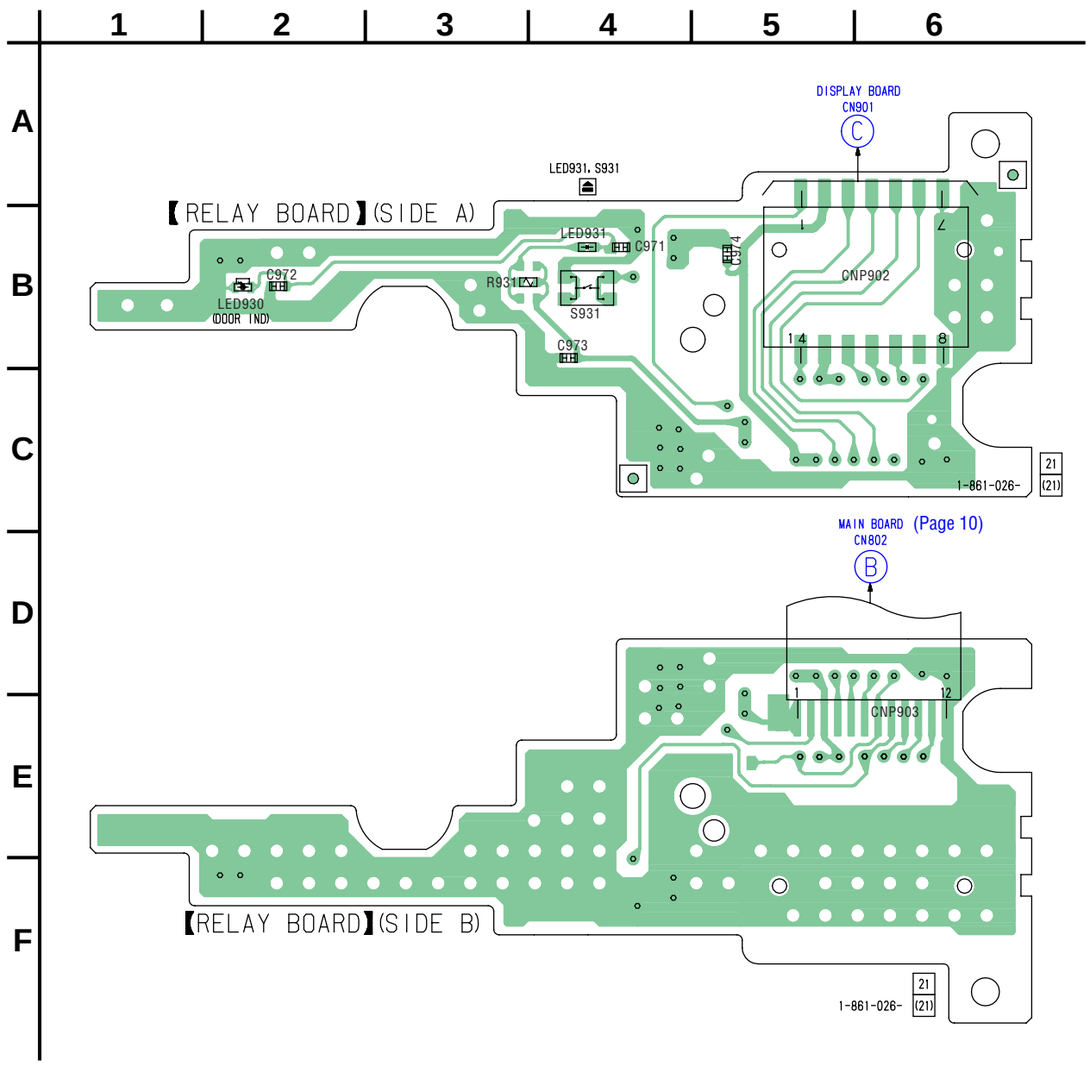
1-7. PRINTED WIRING BOARDS — MAIN SECTION — : Uses unleaded solder.



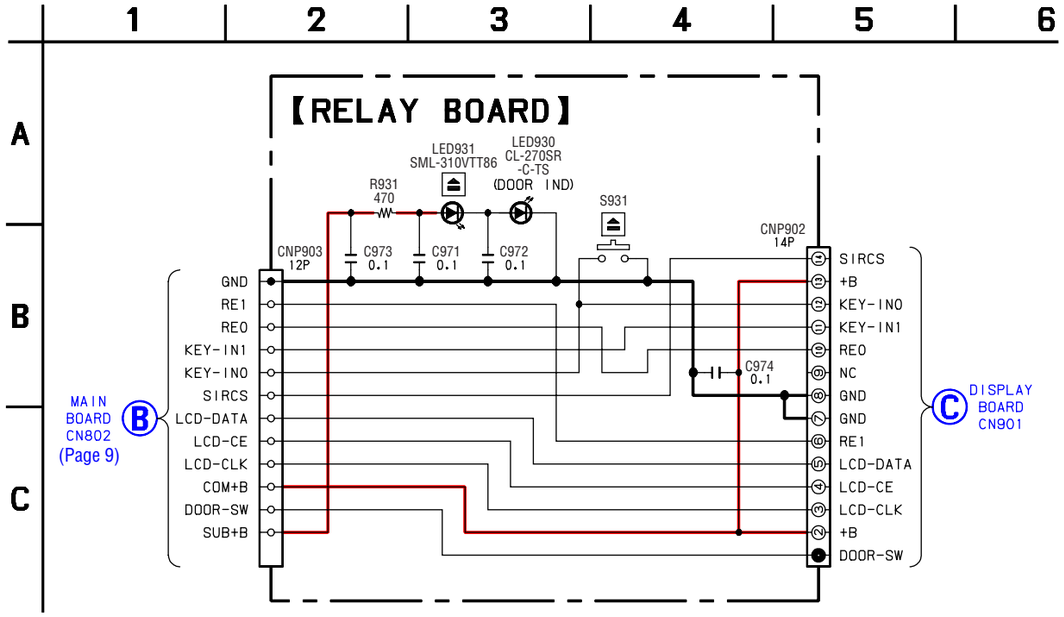
- **Semiconductor Location**

Ref. No.	Location	Ref. No.	Location	Ref. No.	Location
D301	B-3	D858	G-10	IC801	H-7
D400	D-4	D901	I-10	IC802	H-10
D600	D-2	D902	B-7	IC803	E-6
D701	G-7	D903	B-8	IC900	F-10
D702	G-6	D904	C-6		
D801	I-6	D905	C-6	Q301	E-3
D803	J-9	D906	C-7	Q400	D-4
D804	I-10	D907	C-6	Q401	C-4
D805	I-9	D908	C-7	Q402	C-4
D806	I-4	D909	C-7	Q403	D-3
D808	J-9	D910	E-10	Q404	C-3
D810	I-6	D911	B-10	Q405	C-3
D811	I-3	D912	E-11	Q406	C-3
D812	I-3	D913	C-10	Q407	B-3
D813	I-2	D914	C-9	Q601	E-2
D814	I-2	D915	E-10	Q800	I-6
D815	I-2	D916	D-7	Q801	I-5
D816	I-2	D917	D-7	Q802	I-4
D817	I-2	D918	C-8	Q900	H-10
D818	I-9	D919	D-9	Q901	H-10
D821	I-1	D921	D-6	Q902	E-10
D822	I-2	D922	C-6	Q903	D-10
D824	I-3			Q904	D-10
D825	I-3	IC100	B-6	Q905	C-10
D857	G-10	IC401	F-4	Q912	D-8

1-8. PRINTED WIRING BOARD — RELAY SECTION — : Uses unleaded solder.

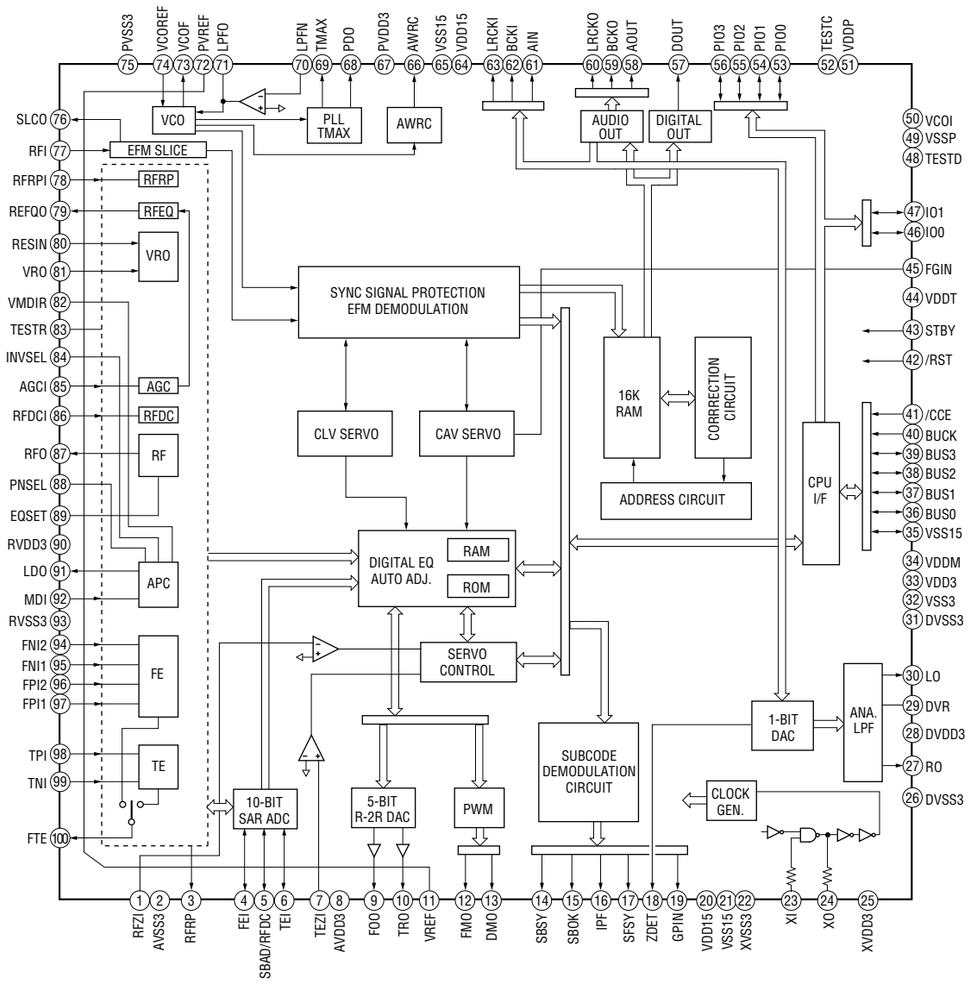


1-9. SCHEMATIC DIAGRAM — RELAY SECTION —

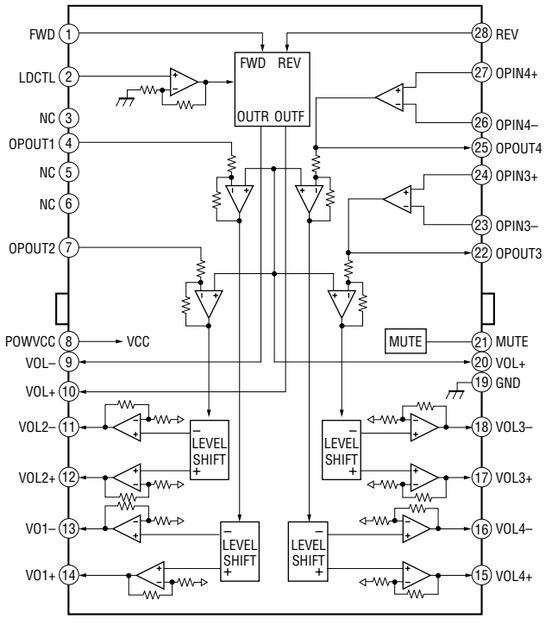


• IC BLOCK DIAGRAMS

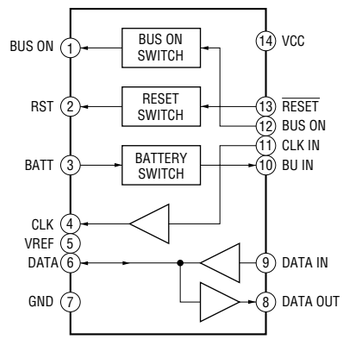
IC2 TC94A60MFG-301 (SERVO Board (1/2))


PVSS3 VCOREF VCOF PVREF LPFO LPFN TMAX PDO PVDD3 AWRC VSS15 VDD15 LRCKI BCKI AIN LRCKO BCKO AOUT DOUT PIO3 PIO2 PIO1 PIO0 TESTC VDDP
SLCO RFI RFRPI REFQO RESIN VRO VMDIR TESTR INVSEL AGCI RFDCI RFO PNSEL EQSET RVDD3 LDO MDI RVSS3 FNI2 FNI1 FPI2 FPI1 TPI TNI FTE
VCO PLL TMAX AWRC AUDIO OUT DIGITAL OUT
EFM SLICE RFRP RFEQ VRO AGC RFDC RF APC FE TE
SYNC SIGNAL PROTECTION EFM DEMODULATION
CLV SERVO CAV SERVO
16K RAM
CORRECTION CIRCUIT
ADDRESS CIRCUIT
CPU I/F
DIGITAL EQ AUTO ADJ.
RAM ROM
SERVO CONTROL
1-BIT DAC
ANA. LPF
SUBCODE DEMODULATION CIRCUIT
CLOCK GEN.
10-BIT SAR ADC
5-BIT R-2R DAC
PWM
VCOI VSSP TESTD IO1 IO0 FGIN VDDT STBY /RST /CCE BUCK BUS3 BUS2 BUS1 BUS0 VSS15 VDDM VDD3 VSS3 DVSS3 LO DVR DVDD3 RO DVSS3
RFZI AVSS3 RFRP FEI SBAD/RFDC TEI TEZI AVDD3 FOO TRO VREF FMO DMO SBSY SBOK IPF SFSY ZDET GPIN VDD15 VSS15 XVSS3 XI XO XVDD3

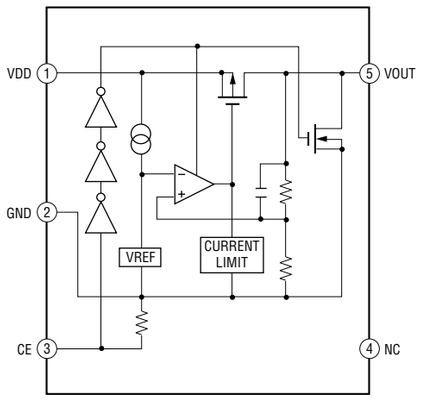
IC1 BA5968FP-E2 (SERVO Board (2/2))


FWD LDCTL NC OPOUT1 NC NC OPOUT2 POWVCC VOL– VOL+ VOL2– VOL2+ VO1– VO1+
REV OPIN4+ OPIN4– OPOUT4 OPIN3+ OPIN3– OPOUT3 MUTE VOL+ GND VOL3– VOL3+ VOL4– VOL4+
FWD REV OUTR OUTF
VCC
MUTE
LEVEL SHIFT

IC900 BA8271F-E2 (MAIN Board (3/3))



IC6 R1114N151D-TR-FA (SERVO Board (1/2))



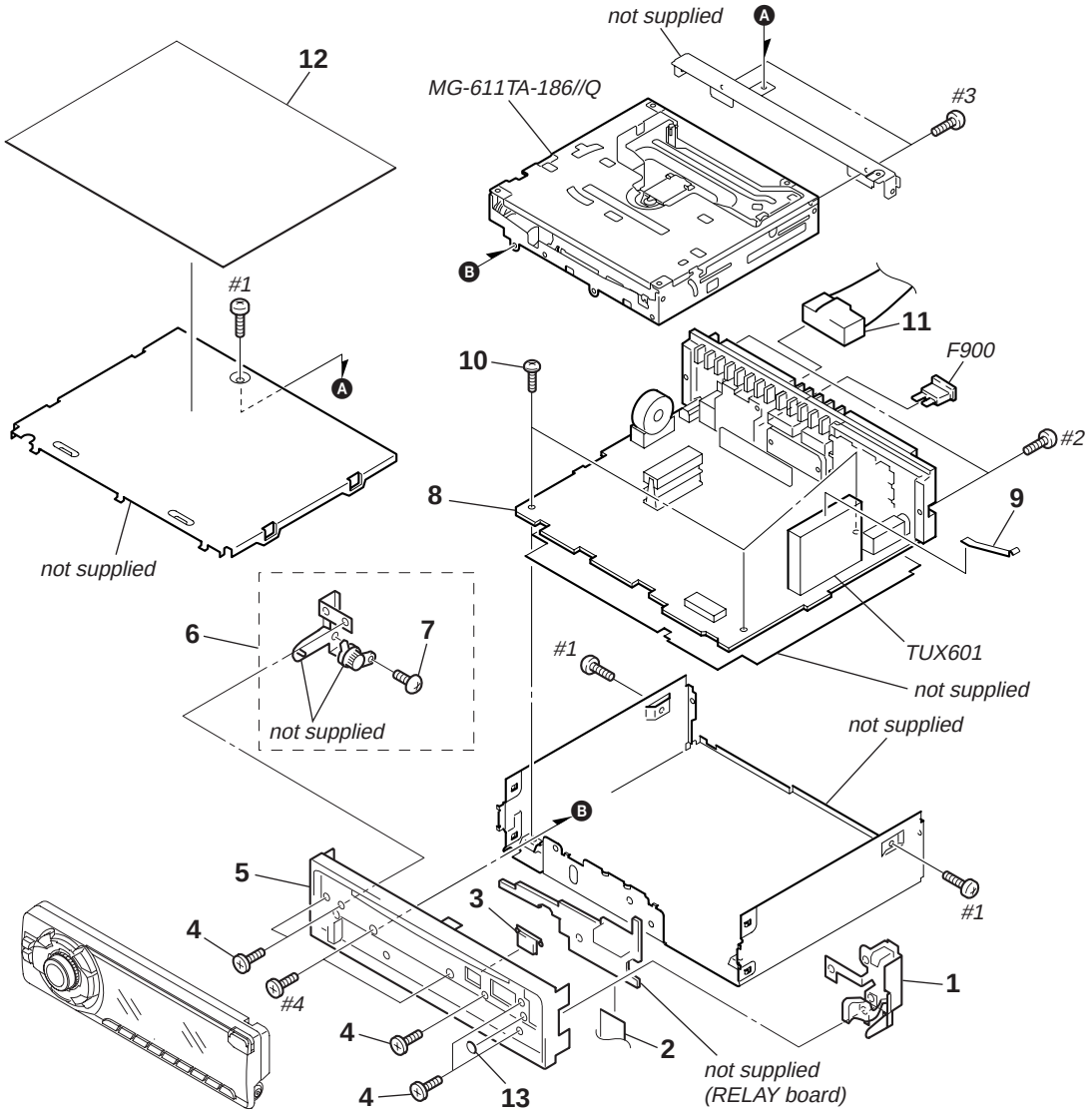
SECTION 2
EXPLODED VIEWS

NOTE:
- The mechanical parts with no reference number in the exploded views are not supplied.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts
  Example :
  KNOB, BALANCE (WHITE) ... (RED)
  Parts Color Cabinet's Color
- Accessories are given in the last of this parts list.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une piéce portant le numéro spécifié.

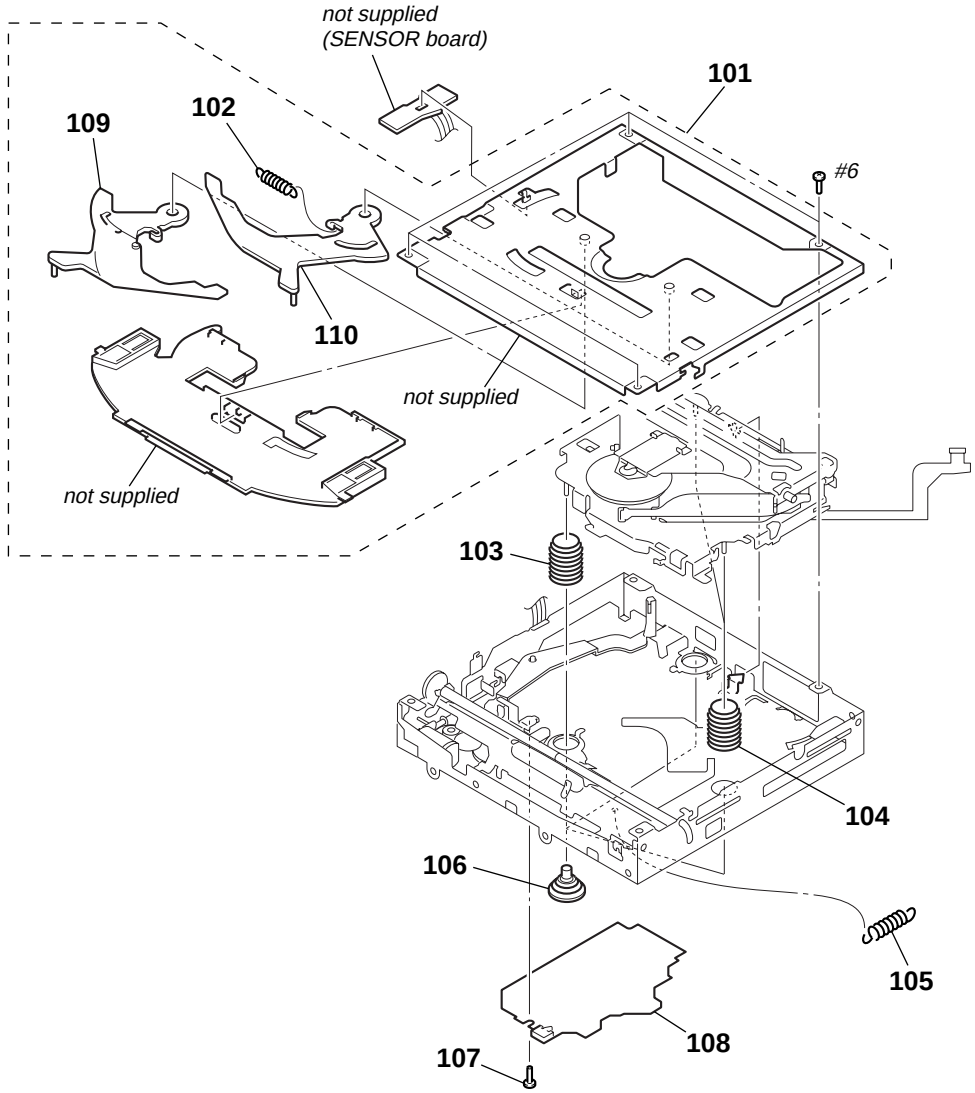
2-1. MAIN SECTION



Ref. No.	Part No.	Description	Remark
1	X-3384-259-1	LOCK ASSY	
2	1-792-173-11	CABLE, FLAT (FFC) 12P	
3	3-246-441-01	BUTTON (EJECT)	
4	3-042-244-31	SCREW (T)	
5	X-3384-364-3	SUB PANEL ASSY	
6	X-3384-203-1	GEAR ASSY	
7	3-713-786-51	SCREW +P 2X3	
8	A-1129-533-A	MAIN BOARD, COMPLETE	
9	2-021-848-01	SHEET (TU), GROUND	
10	2-050-124-01	SCREW +BTT 2.6X5	

Ref. No.	Part No.	Description	Remark
11	1-776-207-72	CORD (WITH CONNECTOR) (POWER)	
12	2-590-307-01	SHEET, COVER	
13	3-260-247-01	CUSHION (SUB PANEL)	
F900	1-532-877-11	FUSE (BLADE TYPE) (AUTO FUSE) 10A	
TUX601	A-3220-961-A	TUNER UNIT (TUX-032)	
#1	7-685-792-09	SCREW +PTT 2.6X6 (S)	
#2	7-685-793-09	SCREW +PTT 2.6X8 (S)	
#3	7-685-790-01	SCREW +PTT 2.6X4 (S)	
#4	7-685-792-04	SCREW +PTT 2.6X6 (S)	

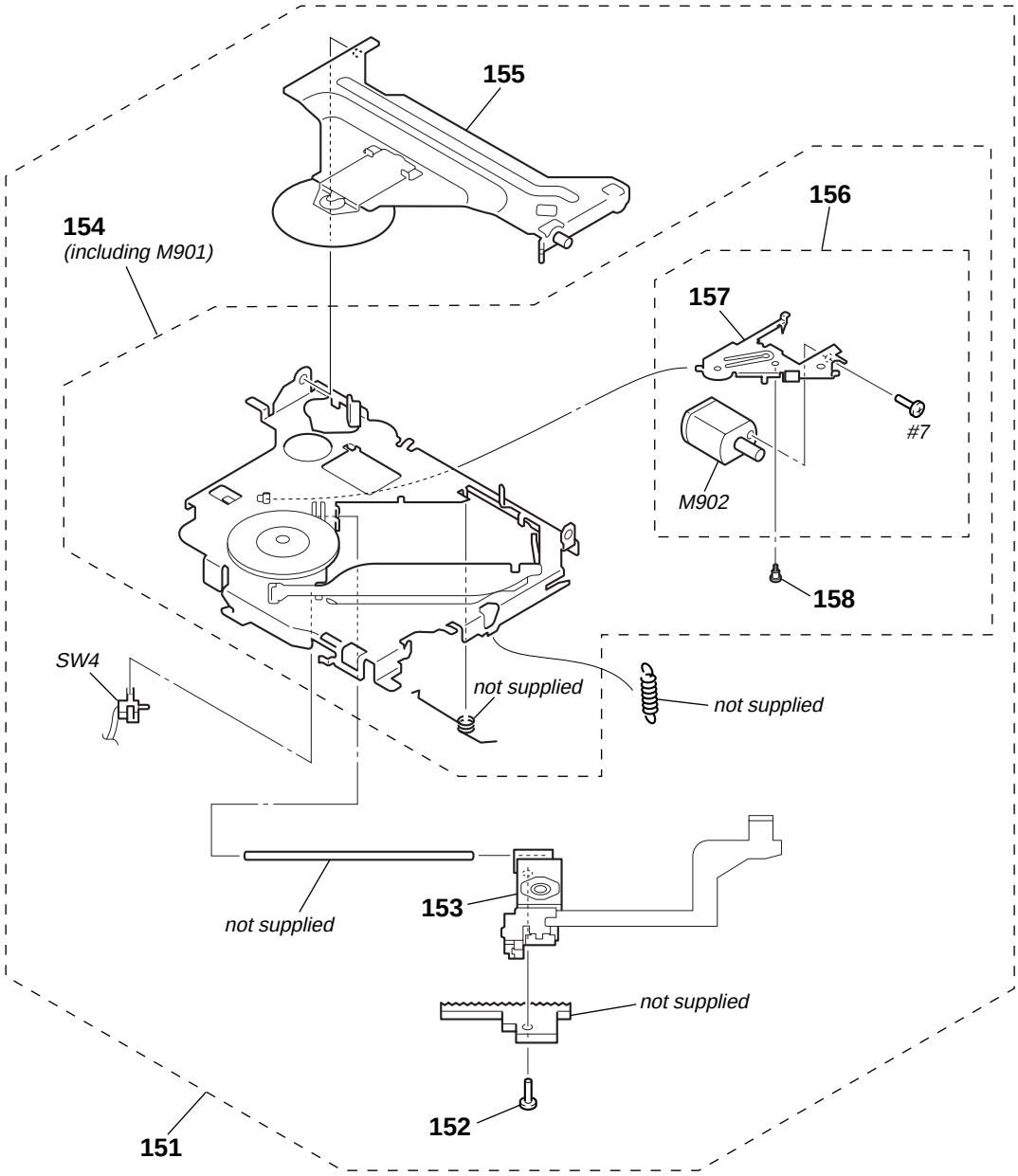
2-2. CD MECHANISM SECTION (1)
(MG-611TA-186//Q)



Ref. No.	Part No.	Description	Remark
101	A-3372-444-A	CHASSIS (T) SUB ASSY	
102	3-253-729-11	SPRING (LR), TENSION COIL	
103	3-257-892-12	SPRING (DAMPER), COIL	
104	3-257-892-01	SPRING (DAMPER), COIL	
105	2-345-767-11	SPRING (KF60), TENSION	
106	3-259-033-01	DAMPER (S)	

Ref. No.	Part No.	Description	Remark
107	2-587-505-01	SCREW	
108	A-1082-772-A	SERVO BOARD, COMPLETE	
109	X-3384-088-2	LEVER (L) ASSY	
110	X-3384-089-2	LEVER (R) ASSY	
#6	7-627-552-87	SCREW, PRECISION +P 1.7X2.2	

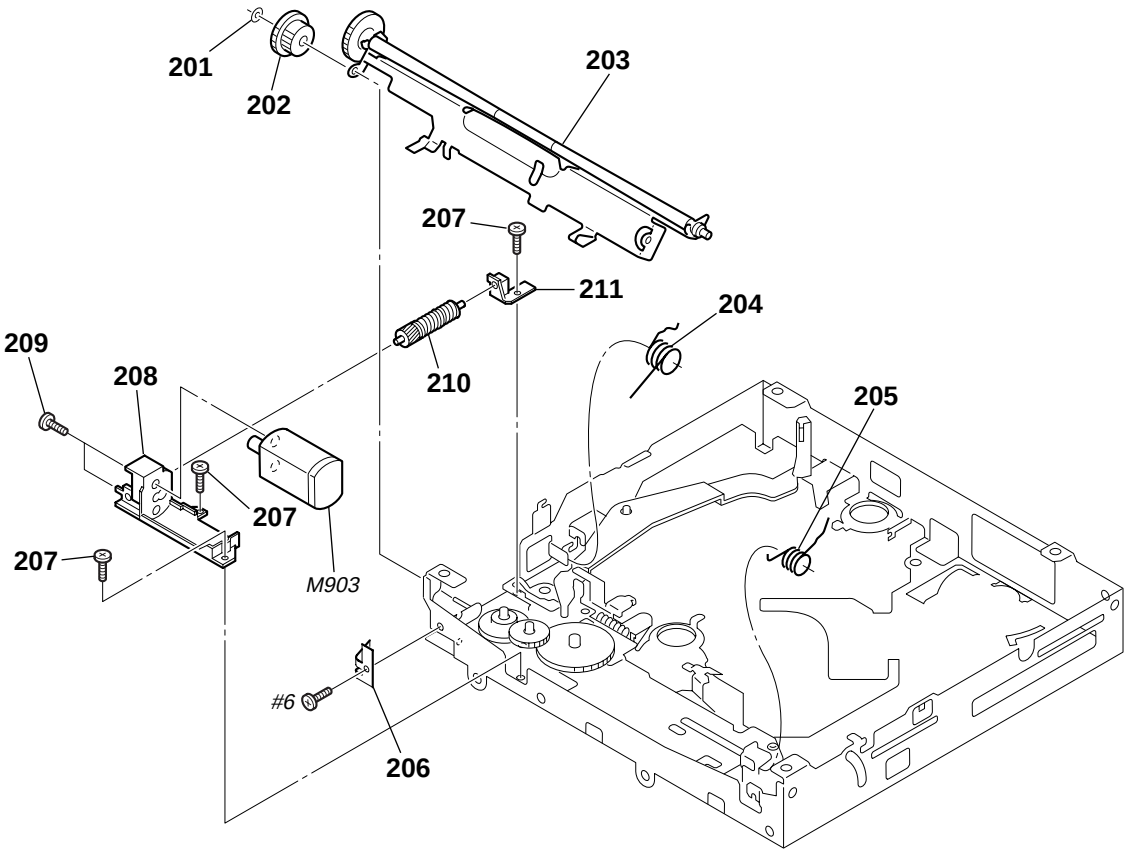
2-3. CD MECHANISM SECTION (2)
(MG-611TA-186//Q)



Ref. No.	Part No.	Description	Remark
151	A-1075-644-A	CHASSIS (OP) COMPLETE ASSY	
152	3-316-938-91	SCREW (B1.4X5), TAPPING	
⚠153	8-820-207-12	OPTICAL PICK-UP (KSS1000E/K1RP)	
154	A-1075-645-A	CHASSIS (OP) SUB ASSY (including M901)	
155	A-3372-449-A	ARM SUB ASSY, CHUCKING	
156	A-3372-446-A	LEVER (SL) SUB ASSY	

Ref. No.	Part No.	Description	Remark
157	X-3384-090-2	LEVER (SL) ASSY	
158	3-264-165-12	SCREW	
M902	A-3372-447-A	MOTOR ASSY, SL (SLED)	
SW4	1-571-099-11	SWITCH (1 KEY) (LIMIT)	
#7	7-627-850-77	SCREW, PRECISION +P 1.4X1.8	

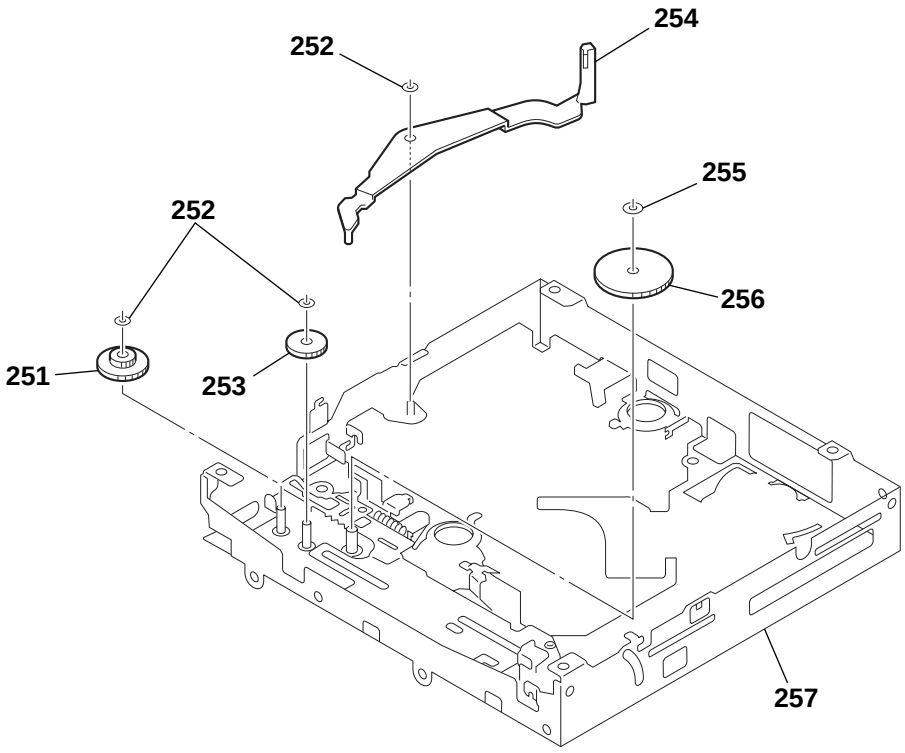
2-4. CD MECHANISM SECTION (3)
(MG-611TA-186//Q)



Ref. No.	Part No.	Description	Remark
201	3-348-993-01	WASHER	
202	2-186-699-01	GEAR (RA1)	
203	A-1075-641-B	ARM ASSY, ROLLER	
204	3-259-455-12	SPRING (RAL)	
205	3-253-713-11	SPRING (RAR)	
206	3-259-469-12	SPRING (LE), LEAF	
207	2-134-636-21	SCREW (M1.7X2.5)	

Ref. No.	Part No.	Description	Remark
208	2-186-696-02	BRACKET (LEM-N)	
209	3-345-648-91	SCREW (M1.4), TOOTHED LOCK	
210	A-1083-636-A	GEAR (LE) ASSY	
211	2-186-697-01	BEARING (LEB-N)	
M903	A-1075-643-A	MOTOR ASSY, LE (LOADING)	
#6	7-627-552-87	SCREW, PRECISION +P 1.7X2.2	

2-5. CD MECHANISM SECTION (4)
(MG-611TA-186//Q)



Ref. No.	Part No.	Description	Remark
251	2-186-700-01	GEAR (CHK1)	
252	3-344-223-01	WASHER	
253	3-259-470-12	GEAR (LE1)	
254	3-253-755-12	LEVER (D)	

Ref. No.	Part No.	Description	Remark
255	2-630-962-01	WASHER (SLIT)	
* 256	2-590-545-01	GEAR (LE2-M)	
257	A-1075-640-B	CHASSIS (M) BLOCK ASSY	

MAIN

SECTION 3
ELECTRICAL PARTS LIST

NOTE:
- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL:Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F:nonflammable
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u : µ, for example:
  uA.. : µA.. uPA.. : µPA..
  uPB.. : µPB.. uPC.. : µPC.. uPD.. : µPD..
- CAPACITORS
  uF : µF
- COILS
  uH : µH

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une piéce portant le numéro spécifié.

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description			Remark
	A-1129-533-A	MAIN BOARD, COMPLETE (including SPEAKER BOARD)			
		**********			
	7-685-134-19	SCREW +P 2.6X8 TYPE2 NON-SLIT			
	7-685-794-09	SCREW +PTT 2.6X10 (S)			
		< CAPACITOR >			
C101	1-126-964-11	ELECT	10uF	20%	50V
C106	1-126-965-11	ELECT	22uF	20%	50V
C107	1-126-964-11	ELECT	10uF	20%	50V
C109	1-104-665-11	ELECT	100uF	20%	25V
C111	1-126-964-11	ELECT	10uF	20%	50V
C113	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C303	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C403	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C404	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C406	1-136-154-00	FILM	0.012uF	5%	50V
C407	1-162-965-11	CERAMIC CHIP	0.0015uF	10%	50V
C408	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V
C409	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V
C410	1-126-960-11	ELECT	1uF	20%	50V
C411	1-126-960-11	ELECT	1uF	20%	50V
C412	1-126-960-11	ELECT	1uF	20%	50V
C413	1-126-960-11	ELECT	1uF	20%	50V
C414	1-126-964-11	ELECT	10uF	20%	50V
C415	1-136-154-00	FILM	0.012uF	5%	50V
C416	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C417	1-126-947-11	ELECT	47uF	20%	35V
C418	1-162-965-11	CERAMIC CHIP	0.0015uF	10%	50V
C420	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C421	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C422	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C423	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C424	1-126-964-11	ELECT	10uF	20%	50V
C425	1-126-964-11	ELECT	10uF	20%	50V
C426	1-126-964-11	ELECT	10uF	20%	50V
C428	1-126-964-11	ELECT	10uF	20%	50V
C430	1-126-947-11	ELECT	47uF	20%	35V
C433	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C434	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C435	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C436	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C437	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C438	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C439	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C440	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C441	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V
C443	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C444	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C446	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C447	1-126-961-11	ELECT	2.2uF	20%	50V
C450	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C451	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C452	1-126-964-11	ELECT	10uF	20%	50V
C453	1-126-964-11	ELECT	10uF	20%	50V
C454	1-126-960-11	ELECT	1uF	20%	50V
C604	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C612	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C613	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C614	1-115-156-11	CERAMIC CHIP	1uF		10V
C615	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C616	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C617	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C618	1-126-947-11	ELECT	47uF	20%	35V
C619	1-126-964-11	ELECT	10uF	20%	50V
C620	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C701	1-104-665-11	ELECT	100uF	20%	25V
C704	1-104-665-11	ELECT	100uF	20%	25V
C706	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C707	1-104-665-11	ELECT	100uF	20%	25V
C709	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C801	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C802	1-126-947-11	ELECT	47uF	20%	35V
C807	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C809	1-104-665-11	ELECT	100uF	20%	25V
C810	1-126-916-11	ELECT	1000uF	20%	6.3V
C812	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C813	1-104-665-11	ELECT	100uF	20%	25V
C814	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C815	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C816	1-162-917-11	CERAMIC CHIP	15PF	5%	50V
C817	1-162-917-11	CERAMIC CHIP	15PF	5%	50V
C818	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C821	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C822	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C825	1-104-665-11	ELECT	100uF	20%	25V
C906	1-126-963-11	ELECT	4.7uF	20%	50V
C908	1-126-960-11	ELECT	1uF	20%	50V
C909	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V

Ref. No.	Part No.	Description			Remark
C917	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C919	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C920	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C921	1-126-940-11	ELECT	330uF	20%	25V
C922	1-131-868-81	ELECT	3300uF	20%	16V
C990	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C991	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C992	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C993	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C994	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
		< CONNECTOR >			
CN751	1-817-536-11	CONNECTOR, BOARD TO BOARD 28P			
CNJ900	1-580-907-41	PLUG, CONNECTOR 8P (BUS CONTROL IN)			
CNP802	1-569-907-11	SOCKET, CONNECTOR 12P			
CNP901	1-774-701-21	PIN, CONNECTOR 16P			
		< JACK >			
CNP900	1-566-822-41	JACK (REMOTE IN)			
		< DIODE >			
D301	8-719-056-83	DIODE UDZ-TE-17-6.8B			
D400	8-719-081-97	DIODE MMDL914T1			
D600	8-719-036-94	DIODE RD5.6SB-T1			
D701	8-719-081-97	DIODE MMDL914T1			
D702	8-719-081-97	DIODE MMDL914T1			
D801	8-719-081-97	DIODE MMDL914T1			
D803	8-719-056-83	DIODE UDZ-TE-17-6.8B			
D804	8-719-058-24	DIODE RB501V-40TE-17			
D805	8-719-058-24	DIODE RB501V-40TE-17			
D806	8-719-058-24	DIODE RB501V-40TE-17			
D808	8-719-056-83	DIODE UDZ-TE-17-6.8B			
D810	8-719-081-97	DIODE MMDL914T1			
D811	8-719-109-97	DIODE RD6.8ESB2			
D812	8-719-109-97	DIODE RD6.8ESB2			
D813	8-719-109-97	DIODE RD6.8ESB2			
D814	8-719-109-97	DIODE RD6.8ESB2			
D815	8-719-109-97	DIODE RD6.8ESB2			
D816	8-719-109-97	DIODE RD6.8ESB2			
D817	8-719-109-97	DIODE RD6.8ESB2			
D818	6-500-137-01	DIODE BAT54HT1			
D821	8-719-109-97	DIODE RD6.8ESB2			
D822	8-719-109-97	DIODE RD6.8ESB2			
D824	8-719-056-93	DIODE UDZ-TE-17-18B			
D825	8-719-056-93	DIODE UDZ-TE-17-18B			
D857	8-719-058-24	DIODE RB501V-40TE-17			
D858	8-719-058-24	DIODE RB501V-40TE-17			
D901	8-719-056-93	DIODE UDZ-TE-17-18B			
D902	8-719-053-18	DIODE 1SR154-400TE-25			
D903	8-719-053-18	DIODE 1SR154-400TE-25			
D904	6-500-522-01	DIODE 10EDB40-TA1B2			
D905	6-500-522-01	DIODE 10EDB40-TA1B2			
D906	6-500-522-01	DIODE 10EDB40-TA1B2			
D907	6-500-522-01	DIODE 10EDB40-TA1B2			
D908	6-500-522-01	DIODE 10EDB40-TA1B2			
D909	6-500-522-01	DIODE 10EDB40-TA1B2			
D910	8-719-058-24	DIODE RB501V-40TE-17			
D911	8-719-056-93	DIODE UDZ-TE-17-18B			
D912	8-719-056-93	DIODE UDZ-TE-17-18B			

Ref. No.	Part No.	Description	Remark
D913	8-719-056-93	DIODE UDZ-TE-17-18B	
D914	8-719-056-83	DIODE UDZ-TE-17-6.8B	
D915	8-719-056-82	DIODE UDZ-TE-17-6.2B	
D916	6-500-522-01	DIODE 10EDB40-TA1B2	
D917	6-500-522-01	DIODE 10EDB40-TA1B2	
D918	8-719-081-97	DIODE MMDL914T1	
D919	8-719-049-38	DIODE 1N5404TU	
D921	6-500-522-01	DIODE 10EDB40-TA1B2	
D922	6-500-522-01	DIODE 10EDB40-TA1B2	
		< FERRITE BEAD >	
FB701	1-414-760-21	FERRITE, EMI (SMD) (1608)	
FB703	1-414-760-21	FERRITE, EMI (SMD) (1608)	
		< IC >	
IC100	6-705-359-02	IC TDA8588AJ/N2/R1	
IC401	6-707-303-01	IC TDA7419TR	
IC801	6-805-004-01	IC MB90487APF-G-125-BNDE1	
IC802	8-759-659-13	IC PST3428UL	
IC803	6-705-373-01	IC MM3123DPLE	
IC900	6-703-884-01	IC BA8271F-E2	
		< JUMPER RESISTOR >	
JR5	1-216-864-11	SHORT CHIP 0	
JR6	1-216-864-11	SHORT CHIP 0	
JR10	1-414-227-11	INDUCTOR, FERRITE BEAD	
		< COIL >	
L400	1-414-398-11	INDUCTOR 10uH	
L700	1-410-509-11	INDUCTOR 10uH	
L701	1-410-501-11	INDUCTOR 2.2uH	
L703	1-216-296-11	SHORT CHIP 0	
L900	1-456-617-11	COIL, CHOKE	
		< JACK >	
PJ401	1-774-700-41	JACK, PIN 6P (BUS AUDIO IN/AUX IN, AUDIO OUT REAR/FRONT)	
PJ601	1-815-185-13	JACK (ANTENNA)	
		< TRANSISTOR >	
Q301	6-550-683-01	FET RJK005N03-T146	
Q400	8-729-421-19	TRANSISTOR UN2213	
Q401	8-729-424-08	TRANSISTOR UN2111	
Q402	6-551-070-01	TRANSISTOR KRC283S-B-RPK/P	
Q403	6-551-070-01	TRANSISTOR KRC283S-B-RPK/P	
Q404	6-551-070-01	TRANSISTOR KRC283S-B-RPK/P	
Q405	6-551-070-01	TRANSISTOR KRC283S-B-RPK/P	
Q406	6-551-070-01	TRANSISTOR KRC283S-B-RPK/P	
Q407	6-551-070-01	TRANSISTOR KRC283S-B-RPK/P	
Q601	8-729-920-85	TRANSISTOR 2SD1664-QR	
Q800	8-729-424-08	TRANSISTOR UN2111	
Q801	8-729-421-19	TRANSISTOR UN2213	
Q802	8-729-424-08	TRANSISTOR UN2111	
Q900	8-729-010-25	TRANSISTOR MSD601-RT1	
Q901	8-729-010-25	TRANSISTOR MSD601-RT1	
Q902	8-729-421-22	TRANSISTOR UN2211	
Q903	8-729-055-96	TRANSISTOR SRC1203SF	
Q904	8-729-055-92	TRANSISTOR SRA2203SF	
Q905	8-729-055-92	TRANSISTOR SRA2203SF	

MAIN

Ref. No.	Part No.	Description			Remark
Q912	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
		< RESISTOR >			
R101	1-216-841-11	METAL CHIP	47K	5%	1/10W
R302	1-216-809-11	METAL CHIP	100	5%	1/10W
R400	1-216-821-11	METAL CHIP	1K	5%	1/10W
R401	1-216-821-11	METAL CHIP	1K	5%	1/10W
R402	1-216-833-11	METAL CHIP	10K	5%	1/10W
R403	1-216-833-11	METAL CHIP	10K	5%	1/10W
R404	1-216-809-11	METAL CHIP	100	5%	1/10W
R405	1-216-809-11	METAL CHIP	100	5%	1/10W
R406	1-216-809-11	METAL CHIP	100	5%	1/10W
R407	1-216-809-11	METAL CHIP	100	5%	1/10W
R408	1-216-833-11	METAL CHIP	10K	5%	1/10W
R409	1-216-864-11	SHORT CHIP	0		
R411	1-216-809-11	METAL CHIP	100	5%	1/10W
R412	1-216-809-11	METAL CHIP	100	5%	1/10W
R413	1-216-833-11	METAL CHIP	10K	5%	1/10W
R414	1-216-809-11	METAL CHIP	100	5%	1/10W
R415	1-216-809-11	METAL CHIP	100	5%	1/10W
R416	1-216-809-11	METAL CHIP	100	5%	1/10W
R417	1-216-809-11	METAL CHIP	100	5%	1/10W
R418	1-216-841-11	METAL CHIP	47K	5%	1/10W
R419	1-216-841-11	METAL CHIP	47K	5%	1/10W
R420	1-216-841-11	METAL CHIP	47K	5%	1/10W
R421	1-216-841-11	METAL CHIP	47K	5%	1/10W
R424	1-216-805-11	METAL CHIP	47	5%	1/10W
R425	1-216-833-11	METAL CHIP	10K	5%	1/10W
R426	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R427	1-216-809-11	METAL CHIP	100	5%	1/10W
R428	1-216-833-11	METAL CHIP	10K	5%	1/10W
R429	1-247-807-31	CARBON	100	5%	1/4W
R430	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R431	1-247-807-31	CARBON	100	5%	1/4W
R432	1-216-809-11	METAL CHIP	100	5%	1/10W
R435	1-216-809-11	METAL CHIP	100	5%	1/10W
R436	1-216-809-11	METAL CHIP	100	5%	1/10W
R437	1-216-821-11	METAL CHIP	1K	5%	1/10W
R440	1-216-809-11	METAL CHIP	100	5%	1/10W
R441	1-216-809-11	METAL CHIP	100	5%	1/10W
R442	1-216-841-11	METAL CHIP	47K	5%	1/10W
R443	1-216-841-11	METAL CHIP	47K	5%	1/10W
R447	1-216-811-11	METAL CHIP	150	5%	1/10W
R448	1-216-841-11	METAL CHIP	47K	5%	1/10W
R468	1-216-864-11	SHORT CHIP	0		
R603	1-247-807-31	CARBON	100	5%	1/4W
R604	1-247-807-31	CARBON	100	5%	1/4W
R606	1-216-809-11	METAL CHIP	100	5%	1/10W
R607	1-216-809-11	METAL CHIP	100	5%	1/10W
R608	1-216-809-11	METAL CHIP	100	5%	1/10W
R614	1-469-144-21	FERRITE, EMI (SMD) (2012)			
R615	1-216-821-11	METAL CHIP	1K	5%	1/10W
R705	1-216-809-11	METAL CHIP	100	5%	1/10W
R708	1-216-864-11	SHORT CHIP	0		
R722	1-216-809-11	METAL CHIP	100	5%	1/10W
R800	1-216-841-11	METAL CHIP	47K	5%	1/10W
R801	1-216-809-11	METAL CHIP	100	5%	1/10W
R804	1-216-809-11	METAL CHIP	100	5%	1/10W

Ref. No.	Part No.	Description			Remark
R805	1-218-871-11	METAL CHIP	10K	0.5%	1/10W
R806	1-218-871-11	METAL CHIP	10K	0.5%	1/10W
R808	1-216-845-11	METAL CHIP	100K	5%	1/10W
R809	1-216-845-11	METAL CHIP	100K	5%	1/10W
R813	1-216-845-11	METAL CHIP	100K	5%	1/10W
R814	1-216-845-11	METAL CHIP	100K	5%	1/10W
R815	1-249-435-11	CARBON	33K	5%	1/4W
R816	1-216-821-11	METAL CHIP	1K	5%	1/10W
R817	1-216-821-11	METAL CHIP	1K	5%	1/10W
R818	1-216-809-11	METAL CHIP	100	5%	1/10W
R819	1-216-809-11	METAL CHIP	100	5%	1/10W
R821	1-216-817-11	METAL CHIP	470	5%	1/10W
R822	1-216-817-11	METAL CHIP	470	5%	1/10W
R823	1-216-817-11	METAL CHIP	470	5%	1/10W
R825	1-216-849-11	METAL CHIP	220K	5%	1/10W
R826	1-216-843-11	METAL CHIP	68K	5%	1/10W
R827	1-216-809-11	METAL CHIP	100	5%	1/10W
R828	1-216-809-11	METAL CHIP	100	5%	1/10W
R830	1-216-809-11	METAL CHIP	100	5%	1/10W
R832	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R833	1-249-417-11	CARBON	1K	5%	1/4W
R834	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R844	1-216-845-11	METAL CHIP	100K	5%	1/10W
R846	1-216-845-11	METAL CHIP	100K	5%	1/10W
R848	1-216-845-11	METAL CHIP	100K	5%	1/10W
R849	1-216-841-11	METAL CHIP	47K	5%	1/10W
R850	1-218-871-11	METAL CHIP	10K	0.5%	1/10W
R851	1-216-845-11	METAL CHIP	100K	5%	1/10W
R852	1-216-864-11	SHORT CHIP	0		
R853	1-216-864-11	SHORT CHIP	0		
R855	1-216-821-11	METAL CHIP	1K	5%	1/10W
R856	1-216-841-11	METAL CHIP	47K	5%	1/10W
R857	1-216-809-11	METAL CHIP	100	5%	1/10W
R858	1-216-809-11	METAL CHIP	100	5%	1/10W
R859	1-216-809-11	METAL CHIP	100	5%	1/10W
R860	1-216-845-11	METAL CHIP	100K	5%	1/10W
R861	1-216-809-11	METAL CHIP	100	5%	1/10W
R862	1-216-809-11	METAL CHIP	100	5%	1/10W
R863	1-216-845-11	METAL CHIP	100K	5%	1/10W
R864	1-216-833-11	METAL CHIP	10K	5%	1/10W
R865	1-216-833-11	METAL CHIP	10K	5%	1/10W
R866	1-216-845-11	METAL CHIP	100K	5%	1/10W
R870	1-249-407-11	CARBON	150	5%	1/4W
R871	1-249-407-11	CARBON	150	5%	1/4W
R872	1-216-029-00	RES-CHIP	150	5%	1/10W
R873	1-216-845-11	METAL CHIP	100K	5%	1/10W
R900	1-216-849-11	METAL CHIP	220K	5%	1/10W
R901	1-216-845-11	METAL CHIP	100K	5%	1/10W
R902	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R903	1-216-841-11	METAL CHIP	47K	5%	1/10W
R904	1-216-841-11	METAL CHIP	47K	5%	1/10W
R905	1-216-833-11	METAL CHIP	10K	5%	1/10W
R907	1-216-833-11	METAL CHIP	10K	5%	1/10W
R908	1-216-809-11	METAL CHIP	100	5%	1/10W
R909	1-216-809-11	METAL CHIP	100	5%	1/10W
R910	1-216-809-11	METAL CHIP	100	5%	1/10W
R911	1-216-864-11	SHORT CHIP	0		
R912	1-249-417-11	CARBON	1K	5%	1/4W

Ref. No.	Part No.	Description			Remark
R913	1-216-821-11	METAL CHIP	1K	5%	1/10W
R914	1-469-144-21	FERRITE, EMI (SMD) (2012)			
R915	1-469-144-21	FERRITE, EMI (SMD) (2012)			
R917	1-249-431-11	CARBON	15K	5%	1/4W
R919	1-216-809-11	METAL CHIP	100	5%	1/10W
R920	1-216-821-11	METAL CHIP	1K	5%	1/10W
R921	1-216-809-11	METAL CHIP	100	5%	1/10W
R925	1-216-845-11	METAL CHIP	100K	5%	1/10W
R926	1-216-849-11	METAL CHIP	220K	5%	1/10W
R927	1-216-833-11	METAL CHIP	10K	5%	1/10W
R929	1-216-821-11	METAL CHIP	1K	5%	1/10W
R930	1-216-821-11	METAL CHIP	1K	5%	1/10W
R931	1-216-073-91	RES-CHIP	10K	5%	1/10W
R932	1-216-073-91	RES-CHIP	10K	5%	1/10W
R935	1-216-841-11	METAL CHIP	47K	5%	1/10W
R936	1-216-864-11	SHORT CHIP	0		
R938	1-216-073-91	RES-CHIP	10K	5%	1/10W
R939	1-216-073-91	RES-CHIP	10K	5%	1/10W
R940	1-216-845-11	METAL CHIP	100K	5%	1/10W
R941	1-216-837-11	METAL CHIP	22K	5%	1/10W
		< SWITCH >			
S800	1-571-478-11	SWITCH, SLIDE (FREQUENCY SELECT)			
S801	1-786-458-11	SWITCH, PUSH (1 KEY) (NOSE DET)			
S802	1-692-431-21	SWITCH, TACTILE (RESET)			
		< THERMISTOR (POSITIVE) >			
TH900	1-801-792-21	THERMISTOR, POSITIVE			
		< TUNER >			
TUX601	A-3220-961-A	TUNER UNIT (TUX-032)			
		< VIBRATOR >			
X800	1-813-524-21	VIBRATOR, CERAMIC (18.432MHz)			
X801	1-813-202-11	VIBRATOR, CRYSTAL (32.768kHz)			

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		RELAY BOARD			
		**********			
	1-792-173-11	CABLE, FLAT (FFC) 12P (CNP903)			
		< CAPACITOR >			
C971	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C972	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C973	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C974	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
		< CONNECTOR >			
CNP902	1-817-159-11	SOCKET, CONNECTOR 14P			
		< DIODE >			
LED930	8-719-082-38	LED CL-270SR-C-TS (DISC IN)			
LED931	8-719-053-09	LED SML-310VTT86 (⏏)			
		< RESISTOR >			
R931	1-216-817-11	METAL CHIP	470	5%	1/10W

Ref. No.	Part No.	Description			Remark
		< SWITCH >			
S931	1-771-884-31	SWITCH, TACTILE (⏏)			

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		SENSOR BOARD			
		**********			
		< SWITCH >			
SW2	1-529-566-61	SWITCH, PUSH (1 KEY) (SELF)			
SW3	1-529-566-61	SWITCH, PUSH (1 KEY) (DISC IN)			

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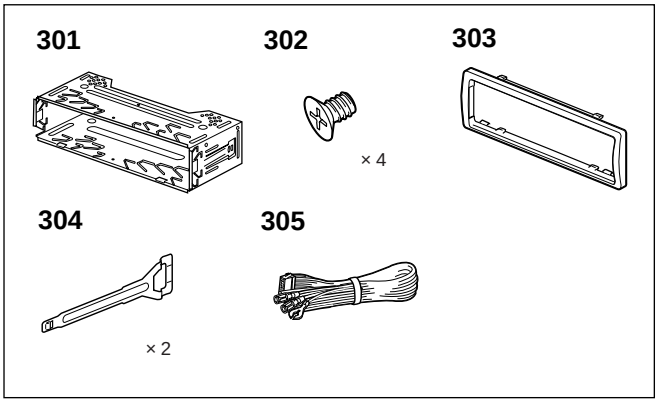
	A-1082-772-A	SERVO BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C4	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C5	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C6	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C7	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C9	1-104-609-11	ELECT CHIP	100uF	20%	4V
C10	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C13	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C16	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C17	1-162-925-11	CERAMIC CHIP	68PF	5%	50V
C18	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C19	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C20	1-164-245-11	CERAMIC CHIP	0.015uF	10%	25V
C21	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C22	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C23	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C24	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C27	1-164-677-11	CERAMIC CHIP	0.033uF	10%	16V
C28	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C29	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C31	1-164-245-11	CERAMIC CHIP	0.015uF	10%	25V
C32	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C33	1-164-677-11	CERAMIC CHIP	0.033uF	10%	16V
C34	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C35	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C36	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C37	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C38	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C39	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C40	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C41	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C42	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C43	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C45	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C47	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C48	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C49	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C51	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C52	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C53	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C57	1-115-416-11	CERAMIC CHIP	0.001uF	5%	25V
C58	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C59	1-126-208-21	ELECT CHIP	47uF	20%	4V

SERVO

Ref. No.	Part No.	Description			Remark
C60	1-112-195-11	ELECT	47uF	20%	4V
C61	1-126-208-21	ELECT CHIP	47uF	20%	4V
C62	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C64	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C65	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C67	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C72	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C80	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C101	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C102	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C103	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C105	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C106	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
		< CONNECTOR >			
CN1	1-691-380-21	CONNECTOR, FFC/FPC 16P			
CN2	1-817-275-21	CONNECTOR, BOARD TO BOARD 28P			
		< JUMPER RESISTOR >			
FB4	1-216-864-11	SHORT CHIP	0		
		< IC >			
IC1	6-707-327-01	IC BA5968FP-E2			
IC2	6-707-328-01	IC TC94A60MFG-301			
IC3	6-805-086-02	IC MB90487APFV-G-142-BNDE1			
IC6	6-705-364-01	IC R1114N151D-TR-FA			
		< TRANSISTOR >			
Q1	8-729-904-87	TRANSISTOR 2SB1197K-R			
Q2	8-729-904-87	TRANSISTOR 2SB1197K-R			
Q3	8-729-928-90	TRANSISTOR DTC114EE			
		< RESISTOR >			
R1	1-218-941-81	RES-CHIP	100	5%	1/16W
R2	1-208-699-11	METAL CHIP	4.7K	0.5%	1/16W
R3	1-208-912-11	METAL CHIP	11K	0.5%	1/16W
R4	1-218-969-11	RES-CHIP	22K	5%	1/16W
R5	1-218-969-11	RES-CHIP	22K	5%	1/16W
R6	1-218-929-11	RES-CHIP	10	5%	1/16W
R7	1-218-929-11	RES-CHIP	10	5%	1/16W
R8	1-218-967-11	RES-CHIP	15K	5%	1/16W
R9	1-218-967-11	RES-CHIP	15K	5%	1/16W
R10	1-218-965-11	RES-CHIP	10K	5%	1/16W
R11	1-218-965-11	RES-CHIP	10K	5%	1/16W
R12	1-218-977-11	RES-CHIP	100K	5%	1/16W
R13	1-218-969-11	RES-CHIP	22K	5%	1/16W
R16	1-218-967-11	RES-CHIP	15K	5%	1/16W
R17	1-218-973-11	RES-CHIP	47K	5%	1/16W
R19	1-218-967-11	RES-CHIP	15K	5%	1/16W
R21	1-218-973-11	RES-CHIP	47K	5%	1/16W
R23	1-218-979-11	RES-CHIP	150K	5%	1/16W
R24	1-218-962-11	RES-CHIP	5.6K	5%	1/16W
R26	1-218-941-81	RES-CHIP	100	5%	1/16W
R28	1-218-947-11	RES-CHIP	330	5%	1/16W
R40	1-218-941-81	RES-CHIP	100	5%	1/16W
R41	1-218-977-11	RES-CHIP	100K	5%	1/16W
R42	1-218-977-11	RES-CHIP	100K	5%	1/16W
R43	1-218-941-81	RES-CHIP	100	5%	1/16W

Ref. No.	Part No.	Description			Remark
R44	1-218-941-81	RES-CHIP	100	5%	1/16W
R45	1-218-989-11	RES-CHIP	1M	5%	1/16W
R46	1-218-947-11	RES-CHIP	330	5%	1/16W
R47	1-218-977-11	RES-CHIP	100K	5%	1/16W
R48	1-218-941-81	RES-CHIP	100	5%	1/16W
R49	1-218-941-81	RES-CHIP	100	5%	1/16W
R50	1-218-941-81	RES-CHIP	100	5%	1/16W
R51	1-218-941-81	RES-CHIP	100	5%	1/16W
R52	1-218-945-11	RES-CHIP	220	5%	1/16W
R53	1-218-941-81	RES-CHIP	100	5%	1/16W
R54	1-218-941-81	RES-CHIP	100	5%	1/16W
R55	1-218-977-11	RES-CHIP	100K	5%	1/16W
R56	1-218-941-81	RES-CHIP	100	5%	1/16W
R57	1-218-941-81	RES-CHIP	100	5%	1/16W
R58	1-218-941-81	RES-CHIP	100	5%	1/16W
R59	1-218-977-11	RES-CHIP	100K	5%	1/16W
R60	1-218-977-11	RES-CHIP	100K	5%	1/16W
R61	1-218-977-11	RES-CHIP	100K	5%	1/16W
R62	1-218-977-11	RES-CHIP	100K	5%	1/16W
R63	1-218-977-11	RES-CHIP	100K	5%	1/16W
R64	1-218-977-11	RES-CHIP	100K	5%	1/16W
R65	1-218-941-81	RES-CHIP	100	5%	1/16W
R66	1-218-941-81	RES-CHIP	100	5%	1/16W
R67	1-218-941-81	RES-CHIP	100	5%	1/16W
R68	1-218-941-81	RES-CHIP	100	5%	1/16W
R69	1-218-941-81	RES-CHIP	100	5%	1/16W
R70	1-218-941-81	RES-CHIP	100	5%	1/16W
R71	1-220-804-11	RES-CHIP	2.2M	5%	1/16W
R72	1-218-941-81	RES-CHIP	100	5%	1/16W
R73	1-218-973-11	RES-CHIP	47K	5%	1/16W
R74	1-218-941-81	RES-CHIP	100	5%	1/16W
R77	1-218-941-81	RES-CHIP	100	5%	1/16W
R78	1-218-941-81	RES-CHIP	100	5%	1/16W
R80	1-218-941-81	RES-CHIP	100	5%	1/16W
R81	1-218-973-11	RES-CHIP	47K	5%	1/16W
R82	1-218-973-11	RES-CHIP	47K	5%	1/16W
R83	1-218-973-11	RES-CHIP	47K	5%	1/16W
R84	1-218-953-11	RES-CHIP	1K	5%	1/16W
R86	1-218-969-11	RES-CHIP	22K	5%	1/16W
R90	1-218-941-81	RES-CHIP	100	5%	1/16W
R91	1-218-941-81	RES-CHIP	100	5%	1/16W
R100	1-220-200-81	RES-CHIP	30K	5%	1/16W
R101	1-218-971-11	RES-CHIP	33K	5%	1/16W
R112	1-218-990-81	SHORT CHIP	0		
R113	1-218-990-81	SHORT CHIP	0		
R116	1-218-977-11	RES-CHIP	100K	5%	1/16W
R117	1-218-977-11	RES-CHIP	100K	5%	1/16W
R118	1-218-977-11	RES-CHIP	100K	5%	1/16W
R119	1-218-977-11	RES-CHIP	100K	5%	1/16W
R125	1-218-941-81	RES-CHIP	100	5%	1/16W
R126	1-218-941-81	RES-CHIP	100	5%	1/16W
R127	1-218-941-81	RES-CHIP	100	5%	1/16W
R128	1-218-941-81	RES-CHIP	100	5%	1/16W
R131	1-216-864-11	SHORT CHIP	0		
R132	1-218-962-11	RES-CHIP	5.6K	5%	1/16W
		< SWITCH >			
SW1	1-529-565-61	SWITCH, PUSH (1 KEY) (DOWN)			

Ref. No.	Part No.	Description	Remark
		< VIBRATOR >	
X1	1-813-371-21	VIBRATOR, CERAMIC (12MHz)	
X2	1-795-561-21	VIBRATOR, CERAMIC (16.9344MHz)	
**********			
		MISCELLANEOUS	
		**********	
11	1-776-207-72	CORD (WITH CONNECTOR) (POWER)	
⚠153	8-820-207-12	OPTICAL PICK-UP (KSS1000E/K1RP)	
154	A-1075-645-A	CHASSIS (OP) SUB ASSY (including M901)	
F900	1-532-877-11	FUSE (BLADE TYPE) (AUTO FUSE) 10A	
M902	A-3372-447-A	MOTOR ASSY, SL (SLED)	
M903	A-1075-643-A	MOTOR ASSY, LE (LOADING)	
SW4	1-571-099-11	SWITCH (1 KEY) (LIMIT)	
**********			
		ACCESSORIES	
		**********	
	2-515-314-51	MANUAL, INSTRUCTION (ENGLISH,FRENCH)	
	2-515-317-51	MANUAL, INSTRUCTION, INSTALL (ENGLISH, FRENCH)	
	X-3378-390-3	CASE (PANEL) ASSY (for FRONT PANEL)	
**********			
		PARTS FOR INSTALLATION AND CONNECTIONS	
		**********	
301	X-3382-647-1	FRAME ASSY, FITTING	
302	3-934-325-01	SCREW, +K (5X8) TAPPING	
303	3-261-758-11	COLLAR	
304	3-246-471-01	KEY (FRAME)	
305	1-776-207-72	CORD (WITH CONNECTOR) (POWER)	



REVISION HISTORY

Clicking the version allows you to jump to the revised page.
Also, clicking the version at the upper on the revised page allows you to jump to the next revised page.

Ver.	Date	Description of Revision
1.0	2005. 02	New
1.1	2005. 08	Production country change. (Supplement-1) (ENG-05009)
1.2	2005. 10	AEP and UK model addition. (ENG-05011)